



## CRITICAL RAW MATERIALS FOR SAFE AND RESILIENT EUROPE SUMMER SCHOOL

3-7 June, 2024 Hotel Venezia, Caorle (VE)

Registration form: bit.ly/summerschoolCRM

**QRCODE** 



INFO <a href="mailto:cewms@dicea.unipd.it">cewms@dicea.unipd.it</a>

## SUPPORTED BY:

PHD COURSE IN "SCIENCES OF CIVIL, ENVIRONMENTAL AND ARCHITECTURAL ENGINEERING" AND THE NATIONAL PHD COURSE IN "SCIENTIFIC, TECHNOLOGICAL AND SOCIAL METHODS ENABLING CIRCULAR ECONOMY" OF THE UNIVERSITY OF PADOVA



## CRITICAL RAW MATERIALS FOR SAFE AND RESILIENT EUROPE SUMMER SCHOOL PROGRAMME

	Monday June 3	Tuesday June 4	Wednesday June 5	Thursday June 6	Friday June 7			
9.00- 10.00		Bernardo Cortese (University of Padova- Italy)  Introduction to the EU CRMA, its meaning in the overall EU legislative and regulatory framework and its foreseeable impact on EU industrial policies	Case Study  Manuele Dabalà (University of Padova- Italy)  Technologies for the recovery of critical and strategic metals from EoL PV panels	Circular Economy and Tools  Gabriella Salviulo (University of Padovaltaly)  CRM and human rights				
10.00- 11.00		Eleonora Di Maria (University of Padova- Italy) Supply chain of CRM	Case Study  Fabrizio Nestola (University of Padova- Italy)  Lithium in sea and continental waters: monitoring and analysis	Circular Economy and Tools  Maria Cristina Lavagnolo (University of Padovaltaly)  Urban Mining and Industrial Symbiosis for CRM	Visit to the Museo della Natura e dell'Uomo in Padova (to be confirmed)			
		COFFEE BREAK	COFFEE BREAK	COFFEE BREAK				
11.30- 13.00		Case Study  Andrea Goffi (RMB - Italy)  Separation and selection of metals from waste	Case Study  Vito Di Noto (University of Padova- Italy)  Electrochemical energy conversion and storage devices: reuse and recycling of CRMs	Workshop  Christoph Roehlich (Heraeus - Germany)  Precious metal recycling				
		LUNCH	LUNCH	LUNCH				

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	Monday June 3	Tuesday June 4	Wednesday June 5	Thursday June 6	Friday June 7
15.00- 16.30	Silvia Gross (University of Padovalitaly)  Introduction to Critical and Strategic Raw Materials	Case Study  Luz Marina Ruiz (University of Granada - Spain)  Saving critical raw materials thanks to the reconditioning, reuse and recycling of e-waste	Workshop  Emanuel Ionescu (Fraunhofer IWKS - Germany)  Sustainable Materials Development for the Energy Transition	Circular Economy and Tools  Alessandra Bonoli (University of Bologna-Italy)  The Life Cycle Assessment approach in Critical Raw Materials recovery and recycling	
	COFFEE BREAK	COFFEE BREAK	COFFEE BREAK	COFFEE BREAK	
17.00- 18.00	Matteo Ardit (University of Padova- Italy) Mining of CRM	Case Study  Franco Bonollo (University of Padovalialy)  Aluminium alloys with minimum CRM content by composition design and recycling	Workshop  Michaela Schicho (Fraunhofer ISI - Germany)  Critical raw materials for the green energy transition	Circular Economy and Tools  Enrico Rubaltelli (University of Padovaltaly)  CRM, psychology, and policy making for a resilient Europe: How to bring the citizens onboard	
18.00- 19.00	Antonio Cavallin Toscani (University of Padovaltaly)  Which circularity strategy for CRM- containing products: change the product design, the business model, or both?	Case Study  Mauro Carraro (University of Padovaltaly)  DES for CRM recovery			