

# EIT RawMaterials Course "Circular Economy"

16 - 20 November 2020 Time: 15.00 - 17.00 On-line event: CONNECT®

The EIT RawMaterials is a platform for innovation funded by the European Institute of Innovation and Technology (EIT). The EIT has created the so-called KIC - Knowledge Innovation Communities, communities that aim to promote innovation and education in Europe in crucial sectors, supporting entrepreneurship and enhancing the passage of new ideas from the incubation phase to the market.

The EIT RawMaterials is particularly committed to addressing the global challenge of supplying raw materials in Europe through programs and projects that aim to develop technology throughout the entire value chain of raw materials: from the exploration of resources, to the mining industry, from metallurgical processes to the replacement of critical or toxic raw materials, from the recycling of end-of-life product materials to the design of products for the circular economy.

As part of regional development programs, the EIT RawMaterials has created a Hub in the Puglia Region (Regional Center Southern Italy - RCSI), coordinated by ENEA and participated by CNR, in order to increase the involvement of the local ecosystems in the activities of KIC and its partnership.

The Strategic Agenda of the Hub - RCSI includes specific initiatives such as research and innovation, training and education, and finally business support.

The objective of the 5 virtual seminars is to improve knowledge on Circular Economy and the opportunities arising from its implementation in companies. The course will provide a systemic and multidisciplinary overview on the principles of the circular economy and the European and National initiatives and policies. The course will also show the main tools and strategies for resource efficiency for closing the loops - such as eco-design and circular business models - both considering the value chains and territorial systems.

## **Agenda**

16 November 2020, h 15:00 - 17:00

Circular Economy transition: principles, context and opportunities for firms

- Circular economy and Regional strategies
  Giuseppe Creanza, Regional Agency for Technology and Innovation ARTI Puglia
- Financing circular economy: the Strategic Research and Innovation Agenda SRIA developed within the Cicerone Project

Roberta De Carolis ENEA



- Circular Economy for business innovation: principles, strategies and tools Francesca Cappellaro, ENEA
- ICESP The Italian way for the Circular Economy Grazia Barberio, ENEA

## 17 November 2020, h 15:00 - 17:00

### The industrial symbiosis

Erika Mancuso, ENEA

### 18 November 2020, h 15:00 - 17:00

## Circular Production and consumption systems

- From materials to products circularity measurement Marco Cappellini, CEO of MATREC
- The importance of REACH Regulation for the circularity of resources Sabrina Moro, ENEA
- Circular design and Business models Paola Sposato, ENEA
- Circular business models in the EEA sector: repairing and remarketing of devises
  Marco Battaglia, CEO & Co-Founder of Sfridoo

## 19 November 2020, h 15:00 - 17:00

### Quintuple Helix and Digital Innovation Ecosystem for the transition towards the Circular Economy

Pasquale Del Vecchio, UNISALENTO

## 20 November 2020, h 15:00 - 17:00

### Circular cities and territories

- Circular transition towards urban and periurban areas
  Giulia Lucertini, IUAV
- Urban mining and circular economy Antonella Luciano, ENEA
- The CIRCuIT Project "CIRcular Cities Transition needs" of the EIT Raw Materials Carolina Innella, ENEA



### **Further Information**

The participation is free of charge. After registration the participants will receive a link CONNECT to follow online the scheduled events.

### Registration

The free of charge registration should be applied to link:

https://www.enea.it/it/seguici/events/virtual-eitrm-course-on-circular-economy/eit-rawmaterials-course-201 ccircular-economy201 description of the course-on-circular-economy/eit-rawmaterials-course-201 ccircular-economy201 description of the course-on-circular-economy/eit-rawmaterials-course-201 ccircular-economy201 description of the course-on-circular-economy201 description

## Language

English is the official language. The presentation slides will be in English, but they will be commented in native language (Italian) of the RCSI area.

### Contact

Email: info@eitrawmaterials-rcsi.eu - Website: www.eitrawmaterials-rcsi.eu

RCSI Coordinator: Dr. Michele Penza - michele.penza@enea.it

## Organized by:



## Supported by:





### Collaborated by:







## **Short CV of the Winter School speakers**



## Pino Creanza <sup>1</sup>

Graduated in Electronics Engineering MD in 1985, he started his career as a microcontroller systems developer for an engineering company. He after joined the Tecnopolis CSATA Science and Technology Park where he dealt with digital VLSI design, industrial automation and machine vision. He currently works for the Regional Agency for Technology and Innovation ARTI, providing support to

innovation policies design and assessment, strategic planning and project management. He's a certified future fresight practitioner from the Institute Fore The Future (IFTF).



## Grazia Barberio<sup>2</sup>

PhD in environmental Science. She is head of Section for Circular Economy in ENEA, where is researcher since 2005. Main expertise are on: new economic models, in particular circular economy; ecoinnovation; sustainability evaluation, development and application of LCA (Life Cycle Assessment) and Ecodesign methodologies; Industrial Symbiosis. She is involved in several EU funded projects concerning resource efficiency and sustainability evaluations of products /technologies in the field of nanomaterials, renewable energy, green chemistry, residues valorisation and

waste integrated management. Member of the many networks and expert groups at national and international levels on sustainable process, circular economy, industrial symbiosis, LCA, she actually is the technical coordinator of Italian Circular Economy Stakeholder Platform (ICESP). She is lead author and coauthor of several scientific papers published on international peer-reviewed journals and proceedings of national/international conferences.



## Francesca Cappellaro<sup>2</sup>

PhD in environmental engineer, is researcher at ENEA (Italian National Agency for New Technologies, Energy and Sustainable Economic Development). Since 2000, she has been working on circular economy, sustainability transition, ecoinnovation, environmental evaluations, eco-design. She has deepen experience in transition thinking and emerging approaches for sustainable system innovation taking part in several European projects, such as EIT Climate-KIC, aimed at introducing circular economy in business and circularity approach in urban areas.

She is member of ICESP (Italian Circular Economy Stakeholders Platform), Green City Network, STRN (Sustainability Transitions Research Network).





### Roberta De Carolis<sup>2</sup>

Chemist. Researcher at ENEA since 2013, at the moment in the Circular Economy Support Section, with experience in technologies for recovering raw materials from complex products and in project management and reporting. She coordinates the Italian Phosphorous Platform and supports the scientific coordination of CICERONE project, aiming at deliver the Strategic Research&Innovation Agenda for Circular Economy. She is responsible of Working Group 4 of Italian Circular Economy Stakeholder Platform, with focus on closing the loop in value chains.



## Marco Capellini<sup>3</sup>

Among the first to deal with Design for Sustainability and Circular Economy in Italy, he has been working as a freelancer since 1999 in his own professional studio (www.marcocapellini.it), and as administrator of MATREC Sustainable Materials & Trends (www.matrec.com ), a consulting firm on the circular innovation of materials and products for businesses.

He collaborates with companies, research centers and public institutions at national and international level, for the development of projects and strategies

of environmental and circular sustainability of materials, products and services. Among the main customers: 3M, Samsung, Indesit Company, Fiat Auto, Coca Cola, Luxottica, Tetra Pak, Boffi, Sitland, Nivea, Renault, Boffi, Giorgio Amani, Tommy Hilfiger, Hera Luce, Enel, Ministry of the Environment and Protection of the Territory, Presidency of the Council of Ministers. In the last few years he has deovetd his work to projects amied at the development of models for measuring the circularity of materials, products and services.



## Sabrina Moro Iacopini<sup>2</sup>

Graduated in Chemistry in 1994 at the University of Milan, she started her career in the field of chemical analysis instrumentation, working in Italy and in The Netherlands for multinationals that manufacture and market analytical instrumentation for R&D and QA/QC laboratories. From 2008 she entered the Public Service at Arpa Lazio and subsequently at ISPRA, working in environmental legislation. Since 2012 she is working on the REACH Regulation in ENEA, which

supports national companies in the implementation of the REACH Regulation, in agreement with the Ministry of Economic Development.





## Paola Sposato<sup>2</sup>

Researcher Researcher at Circular Economy Section (SSPT-SEC) of ENEA - Italian National Agency for New Technologies, Energy and Sustainable Economic Development - Department for Sustainability (SSPT). She holds a degree in Industrial Design at ISIA University of Rome, a Master degree in "Eco-design and Eco-innovation" at the University of Camerino (Italy) and a Master on "Environmental communication. Journalism and green economy dissemination" at

CTS- Rome. She has been working, in collaboration with University and ENEA researcher's team, on several eco-design project for different Italian Enterprises (electronic, Lighting, furniture, mobility ect..). Her research is focused on circular economy strategies and issues such as design for sustainability, life cycle assessment (LCA), process/product/material eco-innovation, resource efficiency, sharing economy, industrial symbiosis and environmental communication.



## Erika Mancuso<sup>2</sup>

Graduated on Political Science in 2003, works in ENEA since 2004 in several projects on environmental sustainability. She has been involved in cooperation with the Italian Ministry of Environment in the implementation of ETS Directive (Emission Trading Scheme). Recently she is a Researcher in ENEA (Sustainability Department, in the Valorization Resources Laboratory) on resource efficiency, circular economy, industrial ecology and industrial symbiosis. She is working on the implementation of the first Italian Industrial Symbiosis Platform in Sicily (project founded by the Italian Ministry of

Education and Research) and in several funded projects on sustainability evaluation. She is lead author and co-author of scientific papers published on international peer-reviewed journals, Italian journals, proceedings of national and international conferences.



## Marco Battaglia⁴

Graduated in Architecture, he's Ceo and Co.funder of Sfridoo S.r.l., a company founded in 2017, which helps companies in the transition to the circular economy. Sfridoo operates in the environmental sector, offering targeted services to companies for the optimization of production residues and leftovers. It uses innovative tools that harness the power of the cloud and the latest technologies for the waste management sector.





## Pasquale Del VECCHIO<sup>5</sup>

PhD, is a Researcher and Lecturer at the Department of Engineering for Innovation of the University of Salento, Italy. In 2007 he was a visiting PhD student in the Center for Business Intelligence at MIT's Sloan School of Management. His research field concerns the issues of digital innovation, regional innovation ecosystems, data driven and sustainable business model. Currently, he is involved in a project related to the development of technological entrepreneurship in the field of circular economy. These research activities have been documented in several publications spanning international journals, conference proceedings and book chapters.



## Giulia Lucertini<sup>6</sup>

Giulia Lucertini is Architect and planner with a Ph.D. in evaluation and territorial economics (Università degli Studi di Padova - Universitè Paris Dauphine). In recent years, she has worked as a researcher mainly in urban planning and evaluation, focusing on urban agriculture, urban metabolism, and the circular economy. She is an expert in urban planning and territorial design, sustainability, and resilience to climate change, mainly linked to environment and landscape, considering how regeneration and urban form can improve the city and lifestyles.

She currently deals with projects related to the urban form and the use of resources (urban metabolism and circular economy), urban and peri-urban agriculture, and food planning



### Carolina Innella<sup>2</sup>

Researcher at ENEA - Italian National Agency for New Technologies, Energy and Sustainable Economic Development, carries out activities on the development of policies and strategies for the transition to circular economy of urban areas and territories. She is involved in several networks and EU funded projects concerning circular economy at urban level and is author/co-author of more than 40 scientific papers published on peer-reviewed journals, Italian journals, proceedings of

national/international conferences.



### Antonella Luciano<sup>2</sup>

Researcher at ENEA with over 15 years of experience in research and design activities in the field of environmental engineering acquired in both public and private sector. Dr. Luciano's research activity include: circular economy and resource efficiency models, sustainability assessment of processes and products, life cycle assessment (LCA, LCC), industrial symbiosis, waste and wastewater treatment and management, remediation of contaminated sites, modelling for

environmental and health risk assessment, environmental impact assessment. She is involved, also as project manager, in international and national research funded projects and in research contracts with public and private bodies. She is member of international and national network and expert groups. As



senior engineer in Sogesid S.p.A., she was consultant for the remediation of national interest sites as Campania "land of fire", Taranto and Augusta bay sites. Graduated cum Laude in Environmental Engineering (2004), PhD in Environmental Engineering (2008), she was research fellow at Sapienza University of Rome (2008-2012). She is autor/co-author of 70 scientific papers published on peer-reviewed journals, proceedings of national and international conferences.

