



INDUSTRIAL POLICIES FOR A CIRCULAR ECONOMY

Study trip for policymakers from Ukraine



10-16 December 2023 | Rome and Ferrara, Italy

With funding from the Federal Ministry for Economic Cooperation and Development of Germany (BMZ)





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Background

Trends in resource use and energy consumption indicate that current forms of industrial production are not sustainable in the long term. Many industrial production systems continue to be inefficient and wasteful. Linear economies which we currently have – economies where a large proportion of the resources in use are not reused and become waste and pollution – threaten to overwhelm the assimilative capacity of our planet.

In order to reverse these developments, industries need not only to improve their material and energy efficiency, they also need to support the development of circular economies: economies where materials are continuously reused rather than thrown away, and where substances harmful to the proper working of ecosystems are prevented from entering them. All this calls for new approaches towards industrial development.

In order to have an industrial sector which can support the development of biologically benign, resource efficient, and circular economies, the greening of the industrial sector is a must. Substantial product and process innovations as well as major new investments are required; new business models need to be developed and mainstreamed; new policies must be adopted which move the industry sector towards greater efficiency, and circularity.

Circular economy provides stability and resilience to economic development and improves job and income security, energy reliability and human wellbeing.

The project

The overall objective of the project is to provide technical support to the Government of Ukraine in conceptualizing and operationalizing a strategic approach towards green industrial reconstruction and development through the coherent, evidence-based and result-oriented green recovery programme for inclusive and sustainable industrial development, which is to be led and owned by the Government of Ukraine.

The project's Output 2 (*Industrial policy advice and capacity development*) focuses on building the capacity of relevant Staff in the Ministry to produce a coherent, efficient and evidence-based industrial strategy in the future. It further covers the preparation of a monitoring and evaluation framework as well as a policy gap analysis. In order to exemplify some of the topics covered in training sessions, two study tours – to Italy and Germany – are going to be organized under this Output.

Course structure

During the study trip, participants will learn about the main strategies which can be adopted to bring about circularity and the major policy instruments which can be adopted to support the transition towards a more sustainable industrial development and greater circularity. This will be complemented by visits to factories, clusters and public institutions.

Faculty consists of senior UNIDO staff, representatives from the University of Roma Tre and international experts attached to the Centre for Research on Circular Economy, Innovation and SMEs (CERCIS), of the Department of Economics and Management at University of Ferrara, Italy, and to Sustainability Environmental Economics and Dynamics Studies (SEEDS), an interuniversity research centre.

The study trip runs from Sunday 10 to Saturday 16 December. It includes lectures and a site visits.

The first three days of the course, dealing mainly with issues related to industrial policy, will take place in Rome. Then, participants will move to Ferrara where the remaining days will be focusing on matters related to circular economy.

Course schedule

Saturday 9 December

Bus transfer from Kyiv to Warsaw

Overnight stay at:

Airport Hotel Okęcie

Komitetu Obrony Robotników 24, 02-148 Warszawa

Web: www.airporthotel.pl

Phone: +48 22 456 80 94

Sunday 10 December

16:25 – 18:40 Flight Warsaw – Rome FCO on flight LO 303

Bus transfer to Hotel:

BV Oly Hotel

Via del Santuario Regina degli Apostoli 36

00145 Roma

Monday 11 December

09:30 – 10:00 Course registration at University Roma Tre

09:45 – 10:00 Welcome address

Valeria Costantini, Dean of Department of Economics University Roma Tre

10:00 – 11:00 Course opening

Francesco Salustri (Roma Tre), Franz Brugger (UNIDO)

11:00 – 11:30 Coffee break

11:30 – 12:30 What is industrial policy and how is it related to the circular economy?

Francesco Salustri (Roma Tre)

12:30 – 13:30 Lunch

13:30 – 15:00 The Circular Economy Action Plan in Europe

Francesco Salustri (Roma Tre)

15:00 – 16:30 The story of circular economy policies for the Italian economy

Silvia Grandi, (Italian Ministry for Ecological Transition)

16:45 – 18:00 Green Industry, an ENEL perspective

Claudio Dicembrino (ENEL)

19:00 Opening dinner

Location: Loste Ria Cucina Romana, Via Silvio D'Amico, 41, 00145 Roma

Tuesday 12 December

- 09:30 – 11:00 Introduction to ENEA
Roberta Boniotti (ENEA)
- 11:00 – 11:30 Coffee break
- 11:30 – 12:30 Innovative solutions and territorial approaches for the transition to a circular economy
Christian Chiavetta (ENEA)
- 12:30 – 13:30 Lunch
- 13:30 – 18:00 Sightseeing

Wednesday 13 December

- 08:30 – 12:30 Bus transfer to Florence
- 12:30 – 14:00 Lunch at restaurant La Scarpetta, Florence
- 14:00 – 16:30 Walking tour through Florence
- 16:30 – 18:30 Bus transfer to Ferrara

Hotel: **Hotel Europa**
Corso della Giovecca, 49
44100 Ferrara

Thursday 14 December

- 08:15 – 9:15 Transfer from Ferrara to Regione Emilia-Romagna, Viale Aldo Moro 44, Bologna
- 09:30 – 9:40 Introduction (*Centoform*)
- 09:40 – 10:10 First Session (*Emilia-Romagna Region*) Emilia-Romagna Pact for job and climate – *Patrizia Bianconi*
- 10:10 – 10:40 Second Session - (*Emilia-Romagna Region*) Circular Economy in Emilia-Romagna policy and Smart Specialization Strategy – *Claudia Romano*
- 10:40 – 11:00 Break
- 11:00 – 12:20 *Clust-ER & Case Study*
11.00: Silvia Rossi – Manager Clust-ER BUILD; 11.20: Katia Ferrari – Manager Clust-ER Greentech - 11.40: Nicolò Bertolini – Project Manager Clust-ER MECH; 12.00: Marco Foschini – Manager Clust-ER Agrifood
- 12:20 – 12.40 *Skills for circular economy and advanced manufacturing*
Erasmus TICHE project, ERASMUS COVE EXCEED, International School in Circular Economy Project management (*Centoform*)
- 12:40 Q&A and Closing Words
- 13:00 – 14:30 Lunch

- 14:30 Departure to Bonfiglioli S.p.A.
Via Cav. Clementino Bonfiglioli 1 – 40012 Calderara di Reno (BO)
- 15.00 – 16.45 Visit to Bonfiglioli, realized in collaboration with the VET provider Centoform. Bonfiglioli S.p.A is leader in design, production and distribution of a full range of gearmotors, drive systems, planetary gearboxes and inverters
- 16:45 Departure to Ferrara - arrival predicted for 17:45

Friday 15 December

- Location: **Department of Economy and Management (DEM)**
University of Ferrara
Palazzo Bevilacqua Costabili
Via Voltapaletto 11
- 09:00 – 10:00 Introduction to circular economy
Edward Clarence-Smith (UNIDO)
- 10:00 – 11:00 UNIDO and Circular Economy
Tatiana Chernyavskaya (UNIDO)
- 11:00 – 11:30 Coffee break
- 11:30 – 12:30 The economics of circular economy
Nicola Cantore (UNIDO)
- 12:30 – 13:30 Lunch
- 13:30 – 14:30 Reshaping business strategies for the circular economy
Massimiliano Mazzanti (Univ. Ferrara)
- 14:30 – 15:30 Normative aspects of CE
Alberto De Franceschi
- 15:30 – 16:00 Tea break
- 16:00 – 17:00 Use/consumption and behavioural issues
Susanna Mancinelli
- 19:00 Closing ceremony and final dinner
Location: Ristorante Il Ciclone, Via Saraceno, 36, 44121 Ferrara

Saturday 16 December

- 08:30 Bus transfer to Milan
- 20:05 – 22:20 Flight back to Warsaw from Milano Malpensa with LO 320

Overnight stay at:

Airport Hotel Okęcie
Komitetu Obrony Robotników 24, 02-148 Warszawa
Web: www.airporthotel.pl
Phone: +48 22 456 80 94

Sunday 17 December

Bus transfer Warsaw - Kyiv

Field trip

On Thursday 14 December, the group will visit factory Bonfiglioli SpA and meet representatives from Emilia-Romagna Region, Clust-ER, Centoform.



Course faculty

Francesco Salustri

Assistant Professor, University Roma Tre, and Honorary Lecturer, University College London



Francesco Salustri is an economist with an interest in environmental economics and behavioral economics. He works as Assistant Professor (tenure-track) of Economics at the Department of Economics, Roma Tre University and Honorary Lecturer at the UCL Institute for Global Health. Prior to this, Francesco held research positions at the University College London, the University of Oxford, the University of Turin, the London School of Economics, and SOAS. He studied Mathematics in Rome and Economics in Toulouse. In April 2018 he obtained a PhD from University of Rome "Tor Vergata" with a thesis on the behavioral aspects of sustainable production and consumption. His research has been published in several international journals, including the European Economic Review, the Oxford Bulletin of Economics and Statistics, Ecological Economics, and the Journal of Environmental Management. In addition to his academic activity, Francesco has also been regularly involved in consulting and policy advice with a number of institutions, including the Italian Ministry for environment, the OECD, the Italian Ministry of economic development, and the World Bank.

Silvia Grandi

Director General for the Circular Economy, Ministry for the Ecological Transition, Italy, and University of Bologna



Silvia Grandi is currently the Direct General for the Circular Economy at the Italian Ministry for Ecological Transition. She was a Director at the Italian Ministry of Economic development since 2010 and member of various national and European committees. She is also an Adjunct Professor at the University of Bologna, and at the University of Modena and Reggio Emilia (2008-18) in the field of geography of development, political, finance and economic geography. Her research interests lie particularly in the relationship between geography and policies, with particular attention to sustainable development, geography of finance, energy, raw materials and natural resources, blue economy, Low Carbon Economy, Cohesion, Neighborhood, Eu integration, multi-level governance EU policies and tourism. She holds a PhD in Environmental Quality and Regional Economic Development at University of Bologna.

Claudio Dicembrino

Head of Group Investment Stewardship Management, ENEL



Claudio Dicembrino is Head of Group Investment Stewardship Management, leading administration, financial and control issues for more than 20 Joint Ventures spread in 15 Countries. Currently he is Managing Director of Enel X International. He joined Enel in 2011 where he was first responsible for the Macroeconomic and Energy Strategy, then Group Chief Economist and from 2019 to 2022 Chief Financial Officer of Enel X. Prior to joining the company, Claudio worked at the Italian Institute for Competitiveness (Rome), the United Nations Department of Economics (New York) and the Italian Ministry of Economic Development. He received a B.A., in Economics of Financial Markets and International Institutions, a M.Sc., in Development Economics, and a Ph.D., in Economics at the University of Rome "Tor Vergata", Italy. He has published in national and international energy and economics peer reviewed journals.

Roberta Boniotti

ENEA - the Italian National Agency for New Technologies, Energy and Sustainable Economic Development



Since 2010 Dr. Roberta Boniotti has been the Advisor on European and International Affairs at ENEA in Brussels, maintaining key links with stakeholders in the EU institutions. Previously she was a Member of the Board of Directors and a Member of the Board of Auditors in several private research companies in Italy and Head of Unit "Company Relations Management" at ENEA Headquarters in Rome. She is an economist, holds a Master's in Business Administration (MBA) from the University of Bologna, and has more than 20 years of experience in the sectors of energy, the environment, and sustainable economic development. Since 2017 she has been the Secretary General of MEDENER, the Association of National Agencies for Energy Management in the Mediterranean Region. Dr. Boniotti is a member of the Executive Working Group of TAFTIE, the European Association of leading National Innovation Agencies, a member of the Advisory Board of Sustainable Energy Investments Forums Initiative, ENEA's

Representative in the network of European National Energy Agencies (EnR) and in the EU WG of the ISSS Platform - Innovation Platform "Sustainable Sea and Ocean Solutions".

Massimiliano Mazzanti

Professor of Economics, University of Ferrara



Massimiliano Mazzanti is currently Professor of Economics in the Department of Economics Institutions and Territory at the University of Ferrara. Since 2019, he has been Director of the Department's Centre for Research on Circular Economy, Innovation and SMEs (CERCIS). Since 2002, he has also been Lecturer in Environmental Economics in the Faculty of Economics and Faculty of Sciences. Since 1999, he has been External Research collaborator on projects dealing with environmental policy, waste and resource management & policy, economic valuation of non-market goods and services, at the National Research Council, Milan. Since 2001, he has been Lecturer for courses in Economics, Public economic and Cultural Economics in the Faculty of Arts and Faculty of Law at the University of Bologna, while since 2004 he has been Lecturer of Environmental economics for the Master's programme for Innovation Development and Change at the Faculty of Law. Since 2012, he has been a Visiting Researcher and Lecturer at Université de Paris Sud, Écoles des Mines, Telecom Business School. Since 2012, Prof. Mazzanti has been Director of the inter-university center SEEDS, which is led by the University of Ferrara and brings together the Universities of Bologna, Tor Vergata in Rome, and Cattolica in Milan. 2016-2017, he was President of the Italian Association of Environmental Economics and Natural Resources.

Prof. Mazzanti holds a Ph.D from the University of Rome III, an MSc in Environmental and Natural Resource Economics from University College, London, and a Degree in Political Science and Economics (110/110) from the University of Bologna.

Tatiana Chernyavskaya

Industrial Development Expert, UNIDO



Since 2004, Ms. Chernyavskaya worked in different UN family organizations in Geneva, Vienna and Tokyo as an economic development, gender and capacity building expert providing analytical, coordination and project management support to national and regional projects on trade, public private partnerships, foresight, innovation, and efficient use of resources in industry. In UNIDO, she has been designing and managing implementation of several research and technical cooperation projects dedicated to equitable and sustainable infrastructure, gender in economics, STI and technology foresight, resource efficient and cleaner production, and circular economy in different countries of Eastern Europe. Apart from UNIDO, she worked in the United Nations Economic Commission for Europe, UN University Headquarters, UN Institute for Disarmament Research and Geneva University.

Ms. Chernyavskaya holds two Master's degree: in International Economics, and in Environmental Technology and International Affairs. She is also an alumnae of the he European Network for Women in Leadership (WIL Europe) and a member of different international and European networks on Circular Economy.

Nicola Cantore

Research and Industrial Policy Officer, UNIDO



Nicola Cantore is currently a research and industrial policy officer at UNIDO's Division of Capacity Development, Statistics and Industrial Policy Advice. His work includes research, policy advice and capacity building. Prior to this, he worked as a junior researcher at the FEEM (Fondazione ENI Enrico Mattei) in Milan, as a senior researcher at the Department of Agricultural Economics and Engineering of the University of Bologna and as a research fellow at the Overseas Development Institute in London. His research interests include environment, development and structural change.

Mr. Cantore holds a Ph.D in environmental economics and management at the University of York and a Ph.D in economics at the Università Cattolica del Sacro Cuore.

Edward Clarence-Smith

Senior Consultant on Green Industry



Edward Clarence-Smith is currently a senior consultant on Green Industry and Circular Economy as well as a Lecturer at Kyoto University on Sustainable Industrialization within a Circular Economy. From 1998 to 2016, he worked for UNIDO in various capacities: UNIDO Regional Representative in Beijing and then in Bangkok (2009-2016); Global Environment Facilities (GEF) Coordinator (2006-2009), and Senior Industrial Officer in the Cleaner Production Unit of UNIDO's Environmental Management Branch (1998-2006). From 1991 to 1998, he was head of Italian operations at Dames & Moore International, an international environmental consultancy company specializing in environmental due diligence and auditing, as well as groundwater remediation. From 1986 to 1990, Mr. Clarence-Smith worked at the Natural Resources Defense Council, an American environmental NGO, focusing on pollution prevention, hazardous waste management and workers' 'right-to-know' legislation. Prior to this, he focused on chemicals management at the Environment Directorate of the OECD and the Joint Research Centre of the EU. Edward started his career at the US Environmental Protection Agency, working on the control of chlorofluorocarbons (CFCs).

Mr. Clarence-Smith holds a BSc (Hons) in Chemical Engineering from Edinburgh University and an SM in the same from MIT. He also holds an Engineering degree in Environmental Engineering from MIT.

Franz Brugger

Project Coordinator, UNIDO



Since 2012, Mr. Brugger works as a capacity development expert and project coordinator with UNIDO. He has been designing and conducting numerous capacity development and training activities on all matters related to industrial policy in Africa, Asia and Europe. Previously, he worked with the United Nations Alliance of Civilizations in New York, the International Press Institute in Vienna and the European Commission.

Mr. Brugger holds a Master's degree in Philosophy from Vienna University and a Master's in International Relations from the University of Cambridge, UK.

Susanna Mancinelli

Professor of Economics, University of Ferrara



Susanna Mancinelli is Professor of Economics in the Department of Economics and Management (DEM), University of Ferrara, Italy. Her main fields of expertise are: environmental economics, waste economics, behavioral economics. She has extensive university teaching experience. She is author of several papers in peer-reviewed journals (Research Policy, Annals of Regional Sciences, The Journal of Socio-Economics, Rationality and Society, Economia Politica, Journal of Analytical and Institutional Economics, Ecological Economics, Climate Policy, International Review of Applied Economics, European Economic Review, World Development). Since 2013 she has participated in the following European Research projects: Horizon2020 “Green.EU”, 2015-19, “European Global Transition Network on Eco-Innovation, Green Economy and Sustainable Development” (<http://www.zew.de/en/projects/1466>); FP7 project CECILIA 2013-15 “Choosing Efficient Combinations of Policy Instruments for Low-carbon development and Innovation to Achieve Europe's 2050 climate targets.”. Prof. Mancinelli holds a Ph.D in Economics from the University of Rome La Sapienza and a Degree in Political Science and Economics from the University of Rome La Sapienza.

Alberto De Franceschi

Professor of Private Law, Digital Law and Environmental Sustainability, University of Ferrara



Alberto De Franceschi is Full Professor of Private Law, Digital Law and Environmental Sustainability, and International Trade Law at the University of Ferrara. Global Law Professor of Digital Law at the Katholieke Universiteit Leuven, Visiting Professor of EU Digital Law at the Zhejiang University, Hangzhou, Visiting Fellow at the University of Trier. He is co-chairman of the European Law Institute's Digital Law Special Interest Group and of the European Law Institute's Environmental Law Special Interest Group, and co-reporter of the European Law Institute's Project on Climate Justice.

He is Delegate of Italy at UNCITRAL, G7, UNIDROIT and the Hague Conference on Private International Law.

He is co-editor of the “Journal of European Consumer and Market Law”, of “The Italian Law Journal”, and of the “International Journal of Digital Law and Governance”. In 2023 he was elected as an ordinary member of The Academy of Europe and of the European Academy of Sciences and Arts.

His research deals with Law of Obligations and Contracts, with focus on digital economy and sustainability.

Patrizia Bianconi

Sustainability, Ecological transition and climate change senior expert, Regione Emilia Romagna



Patrizia Bianconi is Sustainability, Ecological transition and climate change senior expert at the Emilia-Romagna Region. Senior expert, with over 25 years of experience, in the development and coordination of projects at regional, national and international level topics of sustainable development, climate change, clean technologies, process and product qualification (management systems and certifications), low carbon economy, green public procurement and monitoring environmental. Expert in environmental assessment of projects e programs with reference to the Evaluation procedures Environmental Strategic plans and programs. Coordination of projects promotion of local development, territorial economic/environmental cooperation e research programs in cultural heritage. Program Manager of the Joint Initiative Program on Cultural Heritage. Technical director and human resources manager of the Regional Agency for Local Development of Marche region.

Claudia Romano

Head of Energy and Green Economy Area, in Directorate-General for Knowledge, Research, Labour, Enterprises of Emilia-Romagna Region



Eng. Arch. G. Claudia R. Romano. Head of Energy and Green Economy Area, in Directorate-General for Knowledge, Research, Labour, Enterprises of Emilia-Romagna Region. Responsible for energy transition policies and energy regional plan; responsible for implementation of ERDF funds for energy efficiency in buildings, industrial production, public transport, logistics and private transportation; renewable energies; green hydrogen strategy; green economy. Representative in European networks and manager of several MoU with research entities, public administrations and stakeholders, for the related fields.

Nicolò Bertolini

Project Manager Clust-ER Mech



Nicolò Bertolini oversees European activities and relationships at Clust-ER MECH, the cluster organization dedicated to the manufacturing and automotive sectors in Emilia-Romagna. He contributed to the development of several European initiatives, as the AMULET project - focussed on the evolution of advanced materials - and GEMSTONE - dedicated to the development of Green Manufacturing.

Silvia Rossi

Manager Clust-ER BUILD



Silvia Rossi, since 2019 she is Manager of Clust-ER Build, an association of public and private organisations (companies, research centres and training institutions) that aims to support the innovation system in the building and construction field, developing collaborative research and technology transfer activities, according to the priorities of the Emilia Romagna Region Smart Specialization Strategy (S3). Experienced Architect with a demonstrated history of working in the management consulting industry. Skilled in AutoCAD, Sustainable Development, Computer-Aided Design (CAD), Urban Planning, and Revit. Strong arts and design professional with a

Master Internazionale II liv. Eco Polis focused in Sustainable Local Development from Università degli Studi di Ferrara.

Katia Ferrari

Manager Clust-ER Greentech



Graduated in 2000 in Environmental Sciences from the University of Bologna, she moved to Portugal to collaborate as a researcher with the University of Aveiro, working on issues related to sustainable land management and erosion.

Since 2001 she has lived for 13 years in Mozambique, where she worked in the field of international cooperation for development, first for the Italian government and since 2008 as Legal Representative in the country for an International NGO.

During these years she has written, implemented, monitored and evaluated socio-environmental projects, particularly related to urban solid waste management and recycling, also in other African and Asian countries (Tanzania, Senegal, Guinea-Bissau, Vietnam, Cambodia).

In 2014 she returned to Italy and while continuing to consult in the field of international cooperation and training on issues such as sustainability, circular economy, climate change and energy transition, he obtained a PhD in Industrial Innovation Engineering from the University of Modena and Reggio Emilia.

Since 2018 she has been coordinating the activities of the Energy and Sustainable Development Clust-ER of the Emilia-Romagna Region, a private association of companies, research laboratories and training institutions that collaborate to support the competitiveness of the region's production systems through innovation.

Marco Foschini

Cluster Manager, Clust-ER Agrifood



Marco Foschini has a degree in Economics and Commerce. Since 2018 he is the Manager of Clust-ER Agrifood since 2018. The Agrifood Clust-ER is an association of public and private bodies: companies, research centres and training institutions that share skills, ideas and resources to support the competitiveness of the sector. The Emilia-Romagna Region has found in the Clust-ERs the subjects capable of multiplying innovation opportunities through a collaborative approach, as they focus their activity in R&D strategic sectors.

Chiara Pancaldi

Director, Centoform



Chiara Pancaldi is Centoform director and with a degree in Economics and Commerce. Before she worked for the different organization and companies in the field of Vocational and training (Sinnea Internationa, Fondazione Alma Mater, Formindustria Emilia-Romagna). She is currently an expert in training, education and employment.

Elena Romanini

Project Manager, Centoform



Elena Romanini oversees Centoform European activities and relationships. She has more than 20 years of experience in international project management. Actually she manages two Erasmus projects, coordinated by Centoform, directly related to the topics of skills for circular economy (TICHE ACADEMY project) and advanced manufacturing (Erasmus Cove EXCEED project).

List of participants

Name	Position	Ministry
Volodymyr Avramenko	Head of Division	Cabinet of Ministers
Larysa Polishchuk	Deputy Director	Ministry of Foreign Affairs
Olga Kalender	Acting Head of Department	Ministry of Strategic Industries
Tetiana Redkina	Deputy Head of Department	Ministry of Strategic Industries
Alla Kovalenko	Deputy Head of Division	Ministry of Strategic Industries
Tetiana Bieliaieva	Chief Specialist	Ministry of Strategic Industries
Olga Seliverstova	Chief Specialist	Ministry of Strategic Industries
Daria Honcharenko	Head of Division	Ministry of Economy
Inna Harkavenko	Chief Specialist	Ministry of Economy
Olha Bondarchuk	Chief Expert	Ministry of Agrarian Policy and Food
Yana Zubko	Chief Expert	Ministry of Agrarian Policy and Food
Yuliia Chemodanova	Chief Specialist	Ministry of Environmental Protection and Natural Resources
Anastasiia Zavodii	Chief Specialist	Ministry for Communities, Territories and Infrastructure Development
Luibava Radiychuk	Senior Expert	Ministry for Communities, Territories and Infrastructure Development
Valentyn Kyrychenko	Chief Expert	Ministry of Energy

Contact

For more information please contact Mr. Franz Brugger, Project Coordinator, UNIDO at f.brugger@unido.org or via phone at +436502141605.