

# Adriana Del Borghi

Full Professor of Environmental and Sanitary Engineering (CEAR-02/A)

## EDUCATION AND TRAINING

From 1997 to 2000

**PhD (Dottorato di Ricerca) on Technologies and Economics of Processes and Products for Environmental Protection.**

Biological treatment of urban landfill leachate technical feasibility kinetic study and plant design

University of Catania, Italy (Administrative Seat)

From 1992 to 1997

**Degree in Chemical Engineering (Second bachelor's degree/Laurea in Ingegneria Chimica)**

Title: "Hydrolysis and thermophilic anaerobic digestion of sewage sludge and organic fraction of municipal solid waste" – Grade 110/100 with honors and right to publication

University of Genova, Italy

## ACADEMIC HISTORY

Since 2023

**FULL PROFESSOR**

University of Genova, Italy, Polytechnic School, Scientific Sector – CEAR-02/A (ICAR/03)  
"Environmental and Sanitary Engineering"

University of Genova, Italy – Department of Civil, Chemical and Environmental Engineering

From 2014 to 2023

**ASSOCIATE PROFESSOR**

University of Genova, Italy, Polytechnic School, Scientific Sector – ING/IND 26 "Theory of Development of Chemical Processes"

University of Genova, Italy – Department of Civil, Chemical and Environmental Engineering

From 2002 to 2013

**ASSISTANT PROFESSOR**

University of Genova, Italy, Polytechnic School, Scientific Sector – ING/IND 26 "Theory of Development of Chemical Processes"

University of Genova, Italy – Department of Civil, Chemical and Environmental Engineering

From 1999 al 2001

**Post doc Research Grant**

Membrane processes in Agri-food industry

University of Genova, Italy – Department of Chemistry and Industrial Chemistry

**ACADEMIC ROLES (main)**

Since 2020

**Vice-Rector for sustainability (D.R. n.4590 of 12/11/2020)**

University of Genova, Italy

Since 2014

**Coordinator of the Commission for Sustainability of the University of Genoa (DR 1068 of 1.3.2024)**

**Coordinator of the Working Group “UniGe Sostenibile” (NR 28718 of 20.5.2021). From 2021 to 2024**

**Coordinator of the Commission for Environmental Sustainability of the University of Genoa (Prot. N. 81661 of 7/12/2015). From 2015 to 2024**

**Rector’s Delegate for the Conference of Rectors CRUI of the University Network for Sustainability (RUS). Since 2014.**

University of Genova, Italy

Since 2009

**Head of Delegation**

COP (United Nations Climate Change Conference) From 2009, including COP21 – Paris where the Paris Agreement has been adopted in 2015.

United Nations

Since 2007

**Representative person for the University of Genova within the Scientific Committee of the Research Interuniversity Centre HIGH TECH RECYCLING**

Development of innovative eco-compatible technologies for urban, industrial, medical and harbour waste recover and valorisation.

University of Roma La Sapienza – Department of Chemistry

Since 2006

**Director of the Interuniversity Centre CESISP (Centre for the development of Products Sustainability). From 2017 to 2020.**

**Member of the Scientific Committee. From 2006**

Economia Circolare, Industrial Symbiosis, Products Sustainability

Department of Civil, Chemical and Environmental Engineering of the University of Genova;

Institute of Management of the Sant’Anna School of Advanced Studies. Italy

From 2021 to 2024

**Vice-director of the Department of Civil, Chemical and Environmental Engineering (DICCA) over the three-year academic period 2021/2024 (D.R. n. 4761 del 14/10/2021) and member of the Department Council.**

University of Genova, Italy

## INSTITUTIONAL ROLES

From 2020 to 2024

**Member of the Italian Commission Environmental Impact Assessment (EIA)/Strategic Environmental Assessment (SEA)- Ministry of the Environment, Land and Sea (DM N. 241 of 20/08/2019), SEA Sub-commission (DM 7 of 10/01/2020).**

Ministry of the Environment and Energy Security

## MANAGING EXPERIENCE

Since 2018

**CEO and co-founder of Tetis Institute S.R.L. - TEchniques for The Impact on Sustainability, Spin Off of the University of Genova**

Tetis Institute Srl - TEchniques for The Impact on Sustainability

From 2016 to 2017

**Member of the board of directors of the Azienda Multiservizi ATA S.p.A. (Savona) from 04/11/2016 to 04/09/2017**

Azienda Multiservizi ATA S.p.A. (Savona, Italy)

From 2014 to 2017

**Member of the board of directors of the Azienda Multiservizi di Igiene Urbana S.p.A. (AMIU S.p.A. - Genova) from 24/10/2014 to 09/10/2017**

Azienda Multiservizi di Igiene Urbana S.p.A. (AMIU S.p.A. - Genova, Italy)

## EXPERIENCES

### MAIN SEMINARS

2020-2021      Circular Economy School

Teaching and Coordination on behalf of the University of Genoa for ENEL SpA management, aimed at enhancing corporate knowledge and skills for the development of Circular Economy projects – ENEL SpA. In collaboration with the Scuola Superiore Sant’Anna of Pisa.

Edition I-2020; Edition II-2020; Edition I-2021; Edition II-2021; Edition III-2021.

ENEL SpA

Since 2003      Life Cycle Assessment, Ecodesign, Environmental label, Climate Neutrality

Seminars for public bodies, companies, certification bodies

**Responsability of EU funded projects**

# Title	Description	Date	Role
<b>PNRR NextGenerationEU</b>	Referent person for UNIGE: Task 6.2.3. - Development/validation of the circular systems for their capacity to reverse climate change, increase bioeconomy and protect air, water and soil and plant quality and health WP 6.2. - Circular management models for exploitation of waste materials Spoke 6 (Theme 6) - Management models to promote sustainability and resilience of agricultural production systems <b>National Research Centre for Agricultural Technologies (Agritech)</b> European Union – NextGenerationEU National Recovery and Resilience Plan (NRRP), Mission 4, Component 2 Investment 1.4 MISSIONE «ISTRUZIONE E RICERCA» Ministero dell'Università e della Ricerca  Funding € 320.070.095,50 Total	01/09/2022 31/08/2025	Task Leader
<b>PNRR NextGenerationEU</b>	Referent person for UNIGE: Project 8 "AI tools and technologies for greening ports" T2.3.1 AI-tools to evaluate energy consumption and emissions in port areas released by or related to ships, heavy duty vehicles, service vehicles, etc., referring to different time periods Topic 2.3: Sustainability assessment and masterplan of port areas WP2 – Machine Learning and real-time data for port safety, security, and sustainability Spoke 4 (Theme 6) - Smart and sustainable ports" <b>Project RAISE – Robotics and AI for Socio- economic Empowerment</b> European Union – NextGenerationEU National Recovery and Resilience Plan (NRRP), Mission 4, Component 2 Investment 1.4 MISSIONE «ISTRUZIONE E RICERCA» Ministero dell'Università e della Ricerca  Funding € 109.949.673 Total	01/09/2022 31/08/2025	Project leader
<b>INTERREG CENTRAL EUROPE program</b>	Scientific Responsible for UNIGE Task "Circular Economy" Work Packages 1,2,3 AMiCE (Advanced Manufacturing in Central Europe) project, funded b INTERREG CENTRAL EUROPE program <a href="https://www.interreg-central.eu/Content.Node/AMiCE.html">https://www.interreg-central.eu/Content.Node/AMiCE.html</a>  Funding € 2.497.487 Total	01/08/2017 30/07/2020	Task Leader
<b>Life+2010 LIFE10ENV/IT/367</b>	Scientific Responsible for UNIGE UNIGE-CESISP Work Package 1 "Packaging Stream"(Action1 Leader) and Member Steering Committee del Progetto Life+2010 LIFE10ENV/IT/367: Sustainable cruise - prototypes	01/09/2011 30/06/2014	Action1 Leader, Steering Committee

	<p>and approaches for raising the waste hierarchy on board and certifying it <a href="#">Link</a></p> <p>Total cost € 2.629.246 (EU contribution € 1.314.623); UNIGE € 271.886 (EU contribution € 135.943)</p>		
<b>FP7 - (FCH JU) FCH-JU-2009-1</b>	<p>Scientific Responsible for UNIGE-CESISIP and of Work Package 4.3 "Life Cycle Analysis" (WP 4.3 Leader) del Progetto Seventh Framework Programme FP7 - (FCH JU) FCH-JU-2009-1 – Collaborative Project: CATION Cathode Subsystem Development and Optimisation <a href="https://cordis.europa.eu/project/id/256627/it">https://cordis.europa.eu/project/id/256627/it</a></p> <p>Total cost € 7.108.505,76 (EU contribution € 2.625.788,83); UNIGE € 104.270,10 (EU contribution € 83.416,08)</p>	01/01/2011 30/06/2014	WP 4.3 Leader
<b>Life+2009 LIFE09ENV/IT/000200</b>	<p>Co-responsible for UNIGE-CESISIP Work Package 3 "Establishment of a system for the enhancement of the economy and for the allocation of incentives supporting both the achievements of the objectives focusing on the decrease of climate-changing gas emissions and the experimental implementation of a scheme for the assignment and the exchange of emission credits, supported by the local authorities" (Action 3 Leader) Project Life+2009 LIFE09ENV/IT/000200: LAIKA Local Authorities Improving Kyoto Actions <a href="#">Link</a></p> <p>Total cost € 1.852.654 (EU contribution € 926.327); UNIGE € 487.924 (EU contribution € 243.962)</p>	01/10/2010 30/09/2013	Co-responsible Action 3
<b>FP6-2004-Energy-3 SUSTDEV – 1.2.1</b>	<p>Scientific Responsible for UNIGE-DICHeP Work Package 6.4 "Fuel Flexibility, grid connection, safety and LCA" (WP 6.4 Leader) del Progetto Sixth Framework Programme FP6-2004-Energy-3 SUSTDEV – 1.2.1: Towards a Large SOFC Power Plant <a href="https://cordis.europa.eu/project/id/19739">https://cordis.europa.eu/project/id/19739</a></p> <p>Total cost € 11.026.326 (EU contribution € 5.799.636); UNIGE € 1.100.000 (EU contribution: € 550.002)</p>	01/01/2007 31/12/2009	WP 6.4 Leader
<b>FP6-2005-TRANSPORT-4 STREP - Specific Targeted Research Project</b>	<p>Scientific Responsible for UNIGE-DICHeP Work Package 4 "LCA of the marine vessel using renewable methanol based fuel cells" (WP4 Leader) del Progetto Sixth Framework Programme FP6-2005-TRANSPORT-4: METHAPU Validation of Renewable Methanol Based Auxiliary Power System for Commercial Vessels <a href="https://cordis.europa.eu/project/id/31414/it">https://cordis.europa.eu/project/id/31414/it</a></p> <p>Total cost € 1.930.300 (EU contribution € 1.000.000); UNIGE € 193.720 (EU contribution: € 97.360)</p>	01/11/2006 31/12/2009	Participant WP 4 Leader

**Responsability of other projects**

# Title	Description	Date	Role
<b>Fondo Europeo Agricolo per lo Sviluppo Rurale</b>  <b>Programma regionale di sviluppo rurale 2014 - 2020</b> <b>Regione Emilia-Romagna</b>	Scientific Responsible for UNIGE-CESISIP: "Contabilizzazione delle emissioni nette delle colture orticole/frutticole per elaborare proposte di metodologie per la generazione di crediti di carbonio" Domanda AGREA n.5404598 FOCUS AREA 3A Operazione 16.2.01 Determinazione n. 14925 del 01/08/2022 Regione Emilia-Romagna  Funding € 208.050,68 Total (UNIGE € 80.000,00)	01/10/2022 31/03/2024	Scientific Responsible
<b>Bando Comune di Genova</b>	Scientific Responsible for UNIGE-CESISIP: Blu di Genova, Un nuovo modo di scoprire, studiare e proteggere il mare della città finanziato da Fondazione Carige nell'ambito del progetto "Genova Blue District – blue New Deal tra volontariato ed innovazione" Determina Dirigenziale Prot N.36 del 31/05/21 Comune di Genova  Funding € 19.997,67 Total	05/2021  12/2021	Scientific Responsible
<b>Bando Ministero Ambiente SNSvS 2</b>	Scientific Responsible for UNIGE-CENVIS: Azione C1 (Migliorare le conoscenze sui cambiamenti climatici e sui loro impatti) del Progetto "Strumenti, governance e formazione per la strategia di adattamento ai cambiamenti climatici in un'ottica di sviluppo sostenibile" - CATEGORIA DI INTERVENTO 1 Progetti di ricerca a supporto dei processi di elaborazione e attuazione delle strategie regionali e provinciali per lo sviluppo sostenibile, Soggetto Proponente: Fondazione CIMA - Centro Internazionale in Monitoraggio Ambientale, finanziato dal MINISTERO DELL'AMBIENTE E DELLA TUTELA DEL TERRITORIO E DEL MARE (bando per promuovere progetti di ricerca a supporto dell'attuazione della Strategia Nazionale per lo Sviluppo Sostenibile – Bando SNSvS 2) - Decreto CRESS n. 138 del 08-06-2020  Funding € 100.000,00 Total	23/06/2020  2022	Scientific Responsible Action C1
<b>Bando Ministero Ambiente Programma Nazionale</b>	Scientific Responsible for UNIGE: Project PRINCE (PRemialità e INCEntivi per il cambiamento modale), finanziato dal MINISTERO DELL'AMBIENTE E DELLA TUTELA DEL TERRITORIO E DEL MARE all'interno del Programma sperimentale nazionale di mobilità sostenibile casa-scuola e casa-lavoro di cui all'art 5 della Legge 221/2015 (DM 282 del 17/10/2017)  Funding € 1.000.000,00 Total	01/02/2018 31/12/2023	Scientific Responsible
<b>PRA2014</b>	Scientific Responsible: Progetto di ricerca di Ateneo PRA2014 - anno 2014: "Analisi del ciclo di vita per una gestione integrata sostenibile dei rifiuti di Ateneo" SSD ING-IND/26. Università degli Studi di Genova D.R. n.886 del 18/7/2014	01/11/2014 31/10/2016	Scientific Responsible

	Funding € 6.400,00 Total		
<b>European Bank for Reconstruction and Development</b>	Scientific Responsible for UNIGE-CESISP: Call for Expressions of interest (CSU) European Bank for Reconstruction and Development (EBRD)" - 2011: Resource and Process Efficiency in Manufacturing Sectors  Funding € 100.000,00 Total (UNIGE € 50.320,00)	01/07/2012 28/02/2013	Scientific Responsible
<b>Bilateral cooperation Italy - Serbia</b>	Scientific Responsible for UNIGE-CESISP (Team Leader): Call for Expression of Interest under the bilateral cooperation between the Italian Ministry for the Environment, Land and Sea and the Serbian Ministry of Environment and Spatial Planning -2009: AWMS methane recovery, Pik - Becej"  Funding € 30.000,00 Total (UNIGE € 10.000,00)	03/02/2010 03/11/2010	Scientific Responsible
<b>Joint Research Centre - Institute for Environment and Sustainability TENDER No.31/2007</b>	Scientific Coordinator Responsible for UNIGE-CESISP: Task IV (Task IV Leader) European Commission - Joint Research Centre - Institute for Environment and Sustainability TENDER No.31/2007: Technical guidance for review in LCA, embedded into an accredited certification scheme  Funding € 55.000,00 Total	13/12/2007 13/10/2008	Scientific coordinator

#### TEACHING OR RESEARCH POSITIONS (FELLOWSHIPS) AT FOREIGN UNIVERSITIES AND RESEARCH INSTITUTES

##### June 2018 Visiting Fellow

Research activity on Sustainability Engineering e System Design  
Florida International University, FIU - Miami Beach Urban Studios) (Miami, USA)

##### February-March 1999 Visiting Fellow

Research activity on biological treatment of air emissions  
Technische Universiteit Eindhoven, TUE - Chemical Process Development Lab (The Netherlands)

#### EDITORSHIP OR PARTICIPATION IN EDITORIAL BOARDS OF JOURNALS, PUBLISHING SERIES, ENCYCLOPAEDIAS AND TREATISES

##### Since 2012 Editorial Boards

Member of the editorial board of The International Journal of Life Cycle Assessment (Subject Editor "Communication and ISO labels"). Since 07/2012.  
(<http://www.springer.com/environment/journal/11367?detailsPage=editorialBoard>)

Member of the editorial board of "Sustainability" (Climate Change, Mitigation, Ecodesign; Life Cycle Assessment; Circular Economy; Sustainability). From 20-11-2019 to 2025  
(<https://www.mdpi.com/journal/sustainability/editors>)

**PRIZES AND AWARDS FOR SCIENTIFIC ACTIVITY, INCLUDING MEMBERSHIP OF ACADEMIES**

**1997 National Award**

Winner of the IX National Award “Federchimica: an intelligent future”. Award granted for the excellent academic record and for the thesis on new processes for the treatment of solid waste from urban sewers. Milan, April 7, 1997  
Federchimica

**PARTICIPATION IN THE CREATION OF NEW BUSINESS ENTITIES (SPIN-OFFS), DEVELOPMENT, USE AND COMMERCIALISATION OF ACADEMIC PATENTS**

**Since 2018 Spin Off**

CEO and co-founder of Tetis Institute S.R.L. - TEchniques for The Impact on Sustainability, Spin Off of the University of Genova. [www.tetisinstitute.it](http://www.tetisinstitute.it)  
Tetis Institute Srl

**Dal 2008 Deposito marchio**

Trademark registration of eCO2care – CARBON ACCOUNT REGISTRY FOR CLIMATE NEUTRALITY  
The trademark supports technology transfer in the field of voluntary CO<sub>2</sub> reduction project development. [www.eco2care.org](http://www.eco2care.org)  
eCO2Care Registry