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| PERSONAL INFORMATION | Alessandra Bonoli |
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|  | Via Terracini, 28 40131 Bologna, Italy |
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| Date of birth 06/07/1961  Nationality Italian |

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| Academic Experience | phd in Circular Economy, Environmental and Civil Engineering. |  |
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| 2021-  from 2002 – 2021      from 1990 – to 2002  from 1980 – to 1986 | Full Professor in Raw Materials Engineering  She has taught a number of bachelor, master, international master and PHD classes at the University of Bologna and other Italian universities.  Principal among them are “Raw Materials Engineering”, “Valorisation of Primary and Secondary resources”, “Sustainability in Construction”, and ” Resources and Recycling” (taught in English)  Associate Professor at the Civil, Chemical, Environmental and Materials Engineering Department, School of Engineering and Architecture, University of Bologna  Assistant Professor at the University of Bologna  Research Associate at the University of Bologna  Master’s Degree in Mining and Raw Material Engineering with honours from the University of Bologna in 1986 – phd in Raw Materials Engineering |

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| Membership | Since 2019 she has been a delegate of the University of Bologna to the United Nations in the Sustainable Development Solutions Network (UN, New York)  Representative member of the University of Bologna at the European Commission within the Operational Groups of the European Innovation Partnership on Raw Materials (EIP Raw Materials) (from 2018 to today).  President of “ParliamoneOra”, association of academics, established within the University of Bologna.  Member of the experts board supporting the participating process of Bologna Municipality for 2030 Bologna Carbon Neutrality  Member of the experts board of Bologna Municipalty named “Bologna Verde” to promote Nature Based Solutions and Green technologies at city level.  Member of the Sustainability Team at the Sant’Orsola Hospital to promote environmental sustainability and the achievement of the Agenda2030 SDGs  Member of the Sustainability UNIBO Team (by Rector appointment) to promote environmental sustainability and the achievement of the Agenda2030 SDGs inside the University of Bologna  Delegate of the University of Bologna at the Working Group for "School, University and Research for the 2030 Agenda", Ministry of Education, University and Research,  Delegate of the University of Bologna in the Table of Work on Education for the Sustainable Development Goals (UN Agenda 2030 SDGs) and to that of Waste and Resources of the Network of Italian Universities for Sustainable Development (RUS).  Referent of the University of Bologna for the European network WITEC, The European Association for Women in Science, Engineering and Technology (from 2015 to today). |
| Collaborations with Europe and other European Research and Academic Departments  Collaborations with Italian public and private subjects | EU Commission - in the period June 2022-March 2023 she was appointed as expert at the Criticality Working Group of the European Commission for the Criticality assessment of raw materials for the EU-27 - Contract CRM Assessment 2023  United Nations University | Vice-Rectorate in Europe, Sustainable Cycles Programme (SCYCLE) at the United Nations Institute for Training and Research (UNITAR) Office, Bonn, Germany  CITG TU Delft University of Technology, Faculty of Civil Engineering and Geosciences, Delft, Nederland;  DTU, Technical University of Denmark, Department of Management Engineering, University of Copenhagen Denmark;  University of Granada, Spain - Area de Tecnologías del Medio Ambiente, Ingeniería Civil /ETSI Caminos, Canales y Puertos  Technical University of Iasi, "Gheorghe Asachi", Department of Environmental Engineering and Management, Iasi, Romania;  University of Aalborg, Department of Development and Planning Urban Planning and Mobility, Aalborg Denmark;  Fachhochschule Nordwestschweiz Hochschule für Life Sciences, Institut für Ecopreneurship, Muttenz (CH);  Technical University of Cataluna, Barcelona, Spain "GIA (Grupo de Ingeniería Ambiental)", "Departamento de Ciencias y Técnicas del Agua y del Medio Ambiente”.  Clean Energy Research Centre, University of British Columbia, Vancouver, BC, Canada  UNIDO, Vienna.  Emilia Romagna Region,  Bologna Municipality,  ARPAE (regional agency for Environment and Energy),  ENEA (National Energy and Environment Agency),  HERA s.p.a. (Italian Multiutility for environmental services)  Several private companies |

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| Mother tongue(s) | Italian | | | | |
| Other language(s) | UNDERSTANDING | | SPEAKING | | WRITING |
| Listening | Reading | Spoken interaction | Spoken production |  |
| English | B2 | C1 | B2 | C1 | C1 |
|  | Level C1 Common European Framework of Reference for Languages (CEFR) | | | | |
| French | B1 | B1 | B1 | B1 | B1 |
|  | Self evaluation | | | | |
| German | A2 A2 A1 A1 A2 | | | | |
|  | Self evaluation | | | | |
|  | Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user  [Common European Framework of Reference for Languages](http://europass.cedefop.europa.eu/en/resources/european-language-levels-cefr) | | | | |

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| Organisational / managerial skills | Founder and coordinator of a research group (about 15 persons) named “Engineering of Transition and Circular Economy” that is developing researches oriented to building a sustainable world, from the point of view of environmental, social and economic, by saving and valorising natural resources: raw materials, water and energy.  Founder in 2012 the Department Research Center for international COoperation and Development on Engineering, Environment and Emergency (CODE^3) to promote and coordinate Environmental Engineering projects for developing Countries. |
| Main Research themes | Raw Materials Engineering and Circular Economy  Raw materials and Urban Mining  Sustainable development, climate change, ecological transition and energy transition. Mitigation and adaptation.  Sustainable environmental solutions in both the building and waste management fields.  Innovative studies in integrated waste management and in collection and recycling system.  Recycling of Construction and Demolition waste in the context of Circular Economy.  Electrical electronic Equipment waste management and recycling.  Valorisation of primary and secondary resources, as urban and industrial waste as well as technologies dedicated to the production of raw material and materials from recycling process.  Life cycle Sustainability assessment, LCA, LCC, ecological footprint, multicriteria analysis  Researches in urban sustainability and resilience.  Nature Based Solutions and Green Technologies as adaptation tool at urban level  Implementation and application of integrated management systems (in terms of safety, environment quality) to mineral and inert materials processing. Studies on construction and demolition waste recycling and on other waste derived from urban and industrial activities. |
| Main International projects | **Coordination of**  MedFreeSUP, Climate Kic (2020-2022)  EU Horizon 2020  Climate KIC – CLIMATE European Institute for Innovation and Technology  Acronimo: MEDfreeSUP  Title: Single-use plastic free systemic local applications along the Mediterranean east coast, path for a common set of protocols through experiments in Italy, Croatia and Greece  CEI (2018)  EU Horizon 2020  Climate KIC – CLIMATE European Institute for Innovation and Technology  Title: Circular Economy Indicators for plastic value chain in manufacturing  INSIGHT\_BONOLI (2016)  EU Horizon 2020  Climate KIC – CLIMATE European Institute for Innovation and Technology  Acronimo: INSIGHT\_BONOLI  Title: A "new deal" of the University in Informatic Waste Reuse and Recycling  **Partner and responsible of WPs**  eCircular  EU Horizon 2020 (2018-2020)  Climate KIC – CLIMATE European Institute for Innovation and Technology  Project Flagship 2018  Title: Circular Economy Indicators for plastic value chain in manufacturing  EU Horizon 2020 – Societal Challenges - Climate Action, Resources Efficiency and Raw Materials (2017-2020)  Acronym: ROCK  Title: Regeneration and Optimisation of Cultral Heritage in creative and Knowledge Cities  EU Horizon 2020 – CE-BG-06-2019 (2019-2022)  Acronym: BioPlastic Europe  Title: Developing and Implementing Sustainability-Based Solutions for Bio-Based Plastic Production and Use to Preserve Land and Sea Environmental Quality in Europe  INTERREG III/c, Interreg IIIC East. (2005-2008)  Project name: IUWMM  Title: Integrated Urban Waste Management Model |

Main last year publications (2022-2024)

1. B. De Pascale, P. Tataranni, I. Indacoechea-Vega, J. Rodriguez-Hernandez, C. Lantieri, A. Bonoli. Enhancing road performance and sustainability: A study on recycled porous warm mix asphalt. Science of The Total Environment. Volume 960, 15 January 2025, 178370. <https://doi.org/10.1016/j.scitotenv.2025.178370>
2. Liberati, G., Biagi, F., Nanni, A., Parisi, M.F., Barbaresi, L., Querci, L., et al. (2024). Mechanical recycling of foam from end-of-life mattresses by AIR-LAY process for the production of new mattresses with a fully circular approach. CLEANER MATERIALS, 12, 1-11 [10.1016/j.clema.2024.100249].
3. De la Torre-Bayo, J.J.; Zamorano, M.; Torres-Rojo, J.C.; Pennellini, S.; Martín-Pascual, J.; Bonoli, A. Environmental Assessment of Solid Recovered Fuel Production from Screening Waste Using a Life Cycle Assessment Approach. Processes 2024, 12, x. https://doi.org/10.3390/xxxxx
4. Simion IM, Pennellini S, Awere E, Rosatti A, Bonoli A. Enhancing Sustainability in Italian Water Supply Pipes through Life Cycle Analysis. Sustainability. 2024; 16(7):2685. https://doi.org/10.3390/su16072685
5. Caroscio, L.; De Pascale, B.; Tataranni, P.; Chiavetta, C.; Lantieri, C.; Bonoli, A., Preliminary study on the application of waste bivalve shells as biofiller for the production of asphalt concrete, «CLEANER ENGINEERING AND TECHNOLOGY», 2024, 20, Article number: 100743, pp. 1 - 7
6. Haniyeh Jalalipour; Azadeh Binaee Haghighi; Navarro Ferronato; Sara Bottausci; Alessandra Bonoli; Michael Nelles, Social, economic and environmental benefits of organic waste home composting in Iran, «WASTE MANAGEMENT & RESEARCH», 2024, 0, pp. 1 - 15
7. Duncan, Albert Ebo; Pennellini, Sara; Barnie, Samuel; Osei-Marfo, Martha; Boateng, Samuel Nketia; Bonoli, Alessandra, Assessing the sustainable management of Coastal Wetlands in Developing Economies: A Case Study on the Iture-Abakam Natural Wetland in Cape Coast, Ghana, «WETLANDS», 2023, 43, Article number: 94, pp. 1 - 15
8. Pennellini, Sara; Awere, Eric; Kakavand, Narges; Bonoli, Alessandra, Assessment of secondary wastewater treatment technologies for agricultural reuse in Rafah, Gaza Strip: Application of evidential reasoning method, «CLEANER ENGINEERING AND TECHNOLOGY», 2023, 13, Article number: 100611, pp. 1 - 12
9. Obeng PA, Awere E, Obeng PA, Oteng-Peprah M, Mwinsuubo AK, Bonoli A, Quaye SA. Usage and Microbial Safety of Shared and Unshared Excreta Disposal Facilities in Developing Countries: The Case of a Ghanaian Rural District. Sustainability. 2023; 15(13):10282. https://doi.org/10.3390/su151310282
10. Alhjouj A, Bonoli A, Zamorano M. A Critical Perspective and Inclusive Analysis of Sustainable Road Infrastructure Literature. Applied Sciences. 2022; 12(24):12996. https://doi.org/10.3390/app122412996
11. De Pascale, Beatrice; Tataranni, Piergiorgio; Bonoli, Alessandra; Lantieri, Claudio, Comparative Life Cycle Assessment (LCA) of Porous Asphalt Mixtures with Sustainable and Recycled Materials: A Cradle-to-Gate Approach, «MATERIALS», 2023, 16, Article number: 6540, pp. 1 - 12
12. De Pascale, Beatrice; Tataranni, Piergiorgio; Lantieri, Claudio; Bonoli, Alessandra; Sangiorgi, Cesare, Innovative light-coloured porous asphalt for low-impact pavements: A laboratory investigation, «CONSTRUCTION AND BUILDING MATERIALS», 2023, 368, Article number: 130482, pp. 1 - 8
13. De Pascale, B; Tataranni, P; Lantieri, C; Bonoli, A; Sangiorgi, C, Innovative 100% RAP cold in-situ recycling of wearing course layers: laboratory and field characterisation and environmental impact assessment, «INTERNATIONAL JOURNAL OF PAVEMENT ENGINEERING», 2023, 24, Article number: 2241099, pp. 1 - 11 [articolo]
14. De Pascale B.; Tataranni P.; Lantieri C.; Bonoli A.; Vignali V., Mechanical performance and environmental assessment of porous asphalt mixtures produced with EAF steel slags and RAP aggregates, «CONSTRUCTION AND BUILDING MATERIALS», 2023, 400, pp. 132889 - 132899
15. Sara Bottausci, chiara magrini, giulia adele tuci, alessandra bonoli, Plastic impurities in biowaste treatment: environmental and economic life cycle assessment of a composting plant, «ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH INTERNATIONAL», 2023
16. Eric Awere; Peter Appiah Obeng; Alessandra Bonoli Water consumption and wastewater generation from small-scale crude palm oil extraction in Ghana, “Water Practice and Technology” (2023) 18 (1): 86–101. https://doi.org/10.2166/wpt.2022.158
17. Da Silva S.A.C.G.; Loges V.; Silva S.S.L.; Yakubu C.O.O.; Orsini F.; Gianquinto G.; Bonoli A., Selection of ornamental species with different respiratory metabolism for use on green roofs, in: Acta Hortic. 1374. ISHS 2023. DOI 10.17660/ActaHortic.2023.1374.7
18. Obeng, Peter Appiah; Awere, Eric; Quaye, Sharon Amanda; Obeng, Panin Asirifua; Banafo, Kwesi Sane; Pennellini, Sara; Bonoli, Alessandra;, A Review of User Vulnerabilities Associated with Shared Sanitation Practices in Sub-Saharan Africa, «INTERNATIONAL JOURNAL OF ENVIRONMENT AND CLIMATE CHANGE», 2022, 12, Article number: IJECC.95188, pp. 977 - 998
19. Magrini, Chiara; Dal Pozzo, Alessandro; Bonoli, Alessandra, Assessing the externalities of a waste management system via life cycle costing: The case study of the Emilia-Romagna Region (Italy), «WASTE MANAGEMENT», 2022, 138, pp. 285 - 297
20. Liserra, Tonino; Bonoli, Alessandra; Di Federico, Vittorio, Direct Simulation of Micro-Component Water Consumption for the Evaluation of Potential Water Reuse in Households, «ENVIRONMENTAL SCIENCES PROCEEDINGS», 2022, 21, Article number: 43, pp. 1 - 8
21. Degli Esposti, Anna; Magrini, Chiara; Bonoli, Alessandra, Door-to-door waste collection: A framework for the socio – Economic evaluation and ergonomics optimisation, «WASTE MANAGEMENT», 2022, 156, pp. 130 - 138
22. Zanni, S; Roccaro, M; Bocedi, F; Peli, A; Bonoli, A, LCA to Estimate the Environmental Impact of Dairy Farms: A Case Study, «SUSTAINABILITY», 2022, 14, Article number: 6028, pp. 1 - 15
23. Sara Bottausci; Roger Midence; Francisco Serrano-Bernardo; Alessandra Bonoli;, Organic Waste Management and Circular Bioeconomy: A Literature Review Comparison between Latin America and the European Union, «SUSTAINABILITY», 2022, 1661, Article number: 1661, pp. 1 - 14
24. Eric Awere, Alessandra Bonoli, Peter Appiah Obeng, Sara Pennellini, Sara Bottausci, William Kwaasi Amanor and Emmanuel Kekeli Akuaku, Small-Scale Palm Oil Production in Ghana: Practices, Environmental Problems and Potential Mitigating Measures, in: Palm Oil - Current Status and Updates, Mihintale, Dr. Viduranga Y. Waisundara, 2022, pp. 1 - 22 [book chapter]

Bologna, 12/02/2025

