

Stefano PURICELLI
Scientific and Academic Curriculum Vitae



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In short

I graduated in 2014 in Environmental and Land Planning Engineering at Politecnico di Milano. From 2015 to 2018, I worked at three companies in the fields of waste management and recycling, Health, Safety & Environment (HSE), and wastewater treatment. In 2018, I collaborated with the Department of Civil and Environmental Engineering, where I also earned a European Joint Doctorate in Environmental and Infrastructure Engineering (2021), on the use of innovative fuels and biofuels in passenger cars. My subsequent post-doc research (years 2021-2026) was mainly devoted to Life Cycle Assessment (LCA). Topics of my research work ranged from sewage sludge management and WEEE recycling to ozone depletion and alternative passenger cars. Since 2026, I have been working at the Department of Energy of Politecnico di Milano as a postdoctoral researcher on a project focused on CO₂ absorption using ionic liquids. In 2020, I visited the Vrije Universiteit Brussel (Belgium) for six months, where I continued my PhD project. In 2023, I visited the Helmholtz Centre for Environmental Research (Germany) for four months, where I performed a life cycle sustainability assessment on passenger cars.

I have co-advised 3 master's theses. I have co-authored 30 publications (according to Google Scholar), and my Scopus h-index is 8. I spoke at 5 international conferences and seminars.

I am a teaching assistant for the "Air pollution and control engineering" M.Sc. course at Politecnico di Milano. I used to be a teaching assistant for the "Solid waste management and treatment" M.Sc. course and "Fenomeni e controllo delle alterazioni ambientali" B.Sc. course at Politecnico di Milano. In 2025, I taught "Recycling and e-waste" in the Erasmus+ INHABITAT Master of Science.

Since 2019, I have been a member of the Monitoring Committee of the anaerobic digestion plant of Albairate (MI), on behalf of the Municipality.

Part I – General Information

Surname and name	STEFANO PURICELLI
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E-mail	stefano.puricelli@polimi.it
PEC	=
Residence/ Telephone number	Via Giuseppe Garibaldi, 14 – 20001 Inveruno (MI) / Tel. +39 3452210267
Language skills	Italian (mother tongue), English (excellent reading and writing, good listening and speaking)
Web pages	https://www.researchgate.net/profile/Stefano-Puricelli?ev=hdr_xprf https://www.linkedin.com/in/stefanopuricelli/ https://www.aware.polimi.it/stefano-puricelli/
ORCID	0000-0001-8738-0074

Part II – Training

Level	Year	University	Title, Experience and research periods abroad
Bachelor of Science	2012	Politecnico di Milano	Degree in Environmental and Land Planning Engineering (final grade: 94/100). Thesis title: “Bacini idrografici sperimentali per la validazione di modelli idrologici”. Supervisor: Prof. Giovanni Ravazzani.
Master of Science	2014	Politecnico di Milano	Degree in Environmental and Land Planning Engineering (final grade: 99/100). Thesis title: “Valutazione di sostenibilità ambientale del recupero di metalli preziosi da schede elettroniche”. Supervisor: Prof. Giovanni Dotelli.
European Joint Doctorate	2021	Politecnico di Milano	PhD in Environmental and Infrastructure Engineering (XXXIII cycle). Supervisors: Prof. Mario Grosso and Prof. Maarten Messagie (VUB Bruxelles). Co-supervisor: Simone Casadei (Innovhub-SSI S.r.l.) Dissertation: “Effects of the use of innovative fuels and biofuels on the reduction of air pollution and the climate change” The experimental part of the thesis was conducted at Innovhub-SSI S.r.l. in San Donato Milanese (MI) Part of the activities were carried out at the VUB Bruxelles
In possession of the national qualification to practice the profession of Engineer obtained in 2016			

Part III – Academic appointments

III A – Research and teaching roles

Start	End	University	Role
2026	ongoing	Politecnico di Milano	Contracted Researcher (research topic: CO ₂ capture with ionic liquids)
2021	2026	Politecnico di Milano	Research Fellow (research topics: life cycle assessments of biofuels, passenger cars, sludge treatment, and ozone depletion; waste from the energy transition)

III B –Tutor and co-tutor of Master's Theses

Start	End	Institution	Title
2025	2025	Politecnico di Milano	Lithium iron phosphate batteries: recycling strategies and impact on the European phosphorus demand Candidate: Eugenio BENETTI Co-tutor
2022	2023	Politecnico di Milano	Phosphorus recovery from sewage sludge incineration ash Candidate: Alireza ABDOLREZAYI Co-tutor
2022	2023	Politecnico di Milano	Well-to-wheels analysis of passenger cars fuelled with a blend of LPG, bio-LPG, and renewable DME Candidate: Michelle EID Co-tutor

Part IV – International and national teaching activities

IV A – Academic teaching activity – International

Year	Institution	Lecture/Seminar/Course
2025	Erasmus+ Programme	Teacher for the INHABITAT MSc on Smart Urban Sustainability (https://www.inhabitatmsc.eu/). Course on: “Recycling & e-Waste”, 4 ECTS

IV B – Academic teaching activity – National

Year	Institution	Course/module (CFU are equivalent to ECTS)
2026 - ongoing	Politecnico di Milano, School of Civil, Environmental and Land Management Engineering	Tutor for the course “Air Pollution”, in English, Prof. Giovanni Lonati Master of Science in “Environmental and land planning engineering”
2024 - ongoing	Politecnico di Milano, School of Industrial and Information Engineering, Piacenza Campus	Teaching assistant for the course “Air Pollution and Control Engineering”, in English, Prof. Giovanni Lonati (formerly Prof. Stefano Cernuschi) Master of Science in “Energy Engineering – Renewables and Environmental Sustainability”
2025	Politecnico di Milano, School of Civil, Environmental and Land Management Engineering, Lecco Campus	Teaching assistant for the course “Fenomeni e Controllo delle Alterazioni Ambientali” (<i>Phenomena and Control of Environmental Alterations</i>), in Italian, Prof. L. Rigamonti Bachelor of Science in “Civil Engineering for Risk Mitigation”
2018 - 2023	Politecnico di Milano, School of Civil, Environmental and Land Management Engineering	Teaching assistant for the course “Solid Waste Management and Treatment”, in English, Prof. Mario Grosso Master of Science in “Environmental and land planning engineering”

Part V – Committees, research groups, awards and recognitions

V A – Participation in technical-scientific committees

Year	Institution	Role
2019 - ongoing	Monitoring Committee of the composting plant, on behalf of the Municipality of Albairate (MI)	Member of the committee

V B – Awards and Recognitions

Year	Award/Recognition
2025	Young Researcher LCA Award , lecture on: “Nuovi fattori di caratterizzazione per la riduzione dello strato di ozono stratosferico” XIX Convegno dell’Associazione Rete Italiana LCA, Cortina d’Ampezzo (Italy)
2023	DAAD scholarship (https://www.daad.it/it/)

Part VI – Invited speaker at International Conferences/Participation in Scientific Committees of International Conferences/Workshops

Year	Event	Role
2025	12th PROMETIA Scientific Seminar 25/11/2025, Napoli (Italy)	Invited speaker
2025	8th ISWA YPG International Online Conference	Member of the scientific committee
2023	aLIFEca Final Conference 17/10/2023, Prague (Czech Republic)	Invited speaker
2021	16th Conference on Sustainable Development of Energy, Water and Environment Systems (SDEWES) 13/10/2021, Dubrovnik (Croatia)	Co-chair of a session
2021	Young Professionals Group (YPG) Online Conference	Member of the scientific committee

Part VII – Research activities

Year	Title	Client / Funding body
2026-2028	AURIGA – Unveiling the Riddles of GAs–liquid fluid dynamics: towards novel carbon dioxide absorption systems	Italian Ministry of University and Research
2023-2025	Thematic project: waste from the energy transition	MatER Research Center
2023	Life Cycle Assessment of the LPG/Bio-LPG/rDME blend for automotive use	Liquigas
2023	Evaluation of the environmental impacts of the life cycle of different types of fuels – Analysis of bio-LPG and bio-LNG	Liquigas
2022	Forme Avanzate di Gestione dei fanghi di depurazione in un Hub Innovativo lombardo (FANGHI)	MM
2018-2021	Effects of the use of innovative fuels and biofuels on the reduction of air pollution and the climate change	Eni
2018	LCA of sewage sludge management at the Cortelona site	A2A Ambiente

Part VIII – Reviewer for international journals

International journals	Number of reviews
PROMET - Traffic&Transportation	6
Journal of Environmental Management	3
Landscape and Ecological Engineering	3
International Journal of Life Cycle Assessment	3
Waste Management & Research	2
Advances in Science Technology & Innovation	1
Clean Technologies	1
European Journal of Scientific Research and Reviews	1

Part IX – Major research topics

Research topic
LIFE CYCLE ASSESSMENT AND LIFE CYCLE SUSTAINABILITY ASSESSMENT
CO ₂ CAPTURE
IONIC LIQUIDS
BIOFUELS AND E-FUELS
BATTERY ELECTRIC VEHICLES
WASTE FROM ELECTRIC AND ELECTRONIC EQUIPMENT
SEWAGE SLUDGE MANAGEMENT
OZONE DEPLETION
AIR POLLUTION
EMISSIONS FROM PASSENGER CARS
LITHIUM-ION BATTERIES
MICROALGAE
PACKAGING

Part X – Bibliometric indicators

X A – Impact indicators of the overall scientific production for the evaluation of merit

Scopus (as of 27/08/2026)

Article	10
Review	5
Book chapter	3
Conference paper	1
Data paper	1
Total	20
h-index	8
Total citations	448 (by 432 documents)

Web of Science (as of 27/08/2026)

Total articles	15
h-index	8
Total citations	364 (by 351 documents)

Google Scholar (as of 27/08/2026)

Total articles	30
h-index	10 (10 since 2021)
Total citations	614 (555 since 2021)

X B – Additional impact indicators from SCOPUS

1. **Documents in top citation percentiles:** 77.8% (7 documents) Per cent of documents in the top 25% most cited documents worldwide
2. **Documents in top 25% journals:** 77.8% (7 documents) Per cent of documents in the top 25% journals by CiteScore
3. **International collaboration:** 66.7% Percent of documents co-authored with researchers in other countries/regions
4. **List of Sustainable Development Goals (13 out of 17) of the UN 2030 Agenda for Sustainable Development** which include the scientific works surveyed in SCOPUS:

Goal 2: Zero hunger (1 document)

Goal 3: Good health and well-being (1 document)

Goal 6: Clean water and sanitation (1 document)

Goal 7: Affordable and clean energy (12 documents)

Goal 8: Decent work and economic growth (1 document)

Goal 9: Industry, innovation and infrastructure (13 documents)

Goal 12: Responsible consumption and production (14 documents)

Goal 13: Climate action (11 documents)

Goal 14: Life below water (10 documents)

Goal 17: Partnership for the goals (2 documents)

Part XI – Complete list of publications

Year 2026 (5 publications)

Grosso M., **Puricelli S.**

Freshwater aquatic ecotoxicity potential

(2026) Traverso M, Backes JG., Elgar Encyclopedia of Life Cycle Sustainability Assessment. Edward Elgar Publishing

DOI: 10.1016/j.wasman.2026.115483

Barbato P., **Puricelli S.**, Casadei S., Grosso M.

The potential of electrofuels in decarbonising passenger cars: A literature review

(2026) Sustainable Energy Technologies and Assessments, 91, 105115

DOI: 10.1016/j.wasman.2026.115483

Dei F., Brussa G., **Puricelli S.**, Rigamonti L., Grosso M.

I rifiuti delle tecnologie per la transizione energetica: un modello previsionale per l'Italia

(2026) Ingegneria dell'Ambiente, Volume 13, Issue 1

DOI: 10.1016/j.wasman.2026.115483

Dei F., Brussa G., **Puricelli S.**, Rigamonti L., Grosso M.

Forecasting waste from key energy transition technologies in Italy

(2026) Waste Management, 217, 115483

DOI: 10.1016/j.wasman.2026.115483

Puricelli S., Zeug W., Cecere G., Dolci G., van den Oever A., Rigamonti L., Grosso M., Bezama A.

Navigating through Holistic and Integrated LCSA of passenger cars with different power supply: Methodological limitations and research needs

(2026) Journal of Environmental Management, 398, 128499

DOI: 10.1016/j.jenvman.2025.128499

Year 2025 (10 publications)

Abdolrezayi A., **Puricelli S.**, Dolci G., Turolla A., Canziani R., Rigamonti L.

(2025) Phosphorus recovery from sewage sludge ash: life cycle inventory and critical review of LCA case studies

Journal of Environmental Management, Volume 389, August 2025, 125620

DOI: 10.1016/j.jenvman.2025.125620

Brussa G., **Puricelli S.**,

Introduction: Recycling to Support the Energy Transition

(2025) Grosso M., Rigamonti L., (eds) Waste Flows Generated by the Energy Transition. SpringerBriefs in Applied Sciences and Technology. Springer, Cham.

DOI: 10.1007/978-3-031-88951-6_1

Cernuschi S., Lonati G., **Puricelli S.**, Tardivo R., Ozgen S., Signorini S.

Multiyear monitoring of ultrafine particulate matter emissions from a modern full scale WtE plant at real operating conditions

(2025) Conference proceedings of CEST2025 - 19th International Conference on Environmental Science and Technology

DOI: 10.30955/gnc2025.00141

Eid M., **Puricelli S.**, Casadei S., Lixi S., Rigamonti L., Grosso M.

Well-to-Wheel analysis of passenger cars fuelled with a blend of LPG, bio-LPG, and renewable DME
(2025) Clean Technologies and Environmental Policy, 27 (12), pp. 8431 - 8441
DOI: 10.1007/s10098-025-03307-5

Dolci G., **Puricelli S.**, Cecere G., Tua C., Fava F., Rigamonti L., Grosso M.
How does plastic compare with alternative materials in the packaging sector? A systematic review of LCA studies
(2025) Waste Management and Research, 43 (3), pp. 339 - 357
DOI: 10.1177/0734242X241241606

Dolci G., **Puricelli S.**, Crippa I., Rigamonti L., Grosso M.
Microalgae valorisation in different production sectors: A systematic review of life cycle assessment studies
(2025) Algal Research, 92, 104377
DOI: 10.1016/j.algal.2025.104377

Puricelli S.,
Lithium-Ion Batteries
(2025) Grosso M., Rigamonti L., (eds) Waste Flows Generated by the Energy Transition. SpringerBriefs in Applied Sciences and Technology. Springer, Cham.
DOI: 10.1007/978-3-031-88951-6_2

Puricelli S., Eid M., Casadei S., Dolci G., Lixi S., van den Oever A., Rigamonti L., Grosso M.
Life cycle assessment of a partially renewable blend for bi-fuel passenger cars and comparison with petrol and battery electric cars
(2025) Journal of Cleaner Production, 505, 145347
DOI: 10.1016/j.jclepro.2025.145347

Puricelli S., Turner, S.F.
Electric Motors
(2025) Grosso M., Rigamonti L., (eds) Waste Flows Generated by the Energy Transition. SpringerBriefs in Applied Sciences and Technology. Springer, Cham.
DOI: 10.1007/978-3-031-88951-6_3

Puricelli S., van den Oever A., Cernuschi S., Grosso M., Rigamonti L.
Nuovi fattori di caratterizzazione per la riduzione dello strato di ozono stratosferico
(2025) Conference proceedings of XIX Convegno dell'Associazione Rete Italiana LCA
<https://www.reteitalianalca.it/area-riservata/>

Year 2024 (4 publications)

Puricelli S., Franzoni A., Traversi M., Bannò M., Canziani R., Grosso M., Rigamonti L.
La sostenibilità ambientale ed economica del trattamento dei fanghi di depurazione: evidenze dalla letteratura
(2024) Ingegneria dell'Ambiente, Volume 10, Issue 4

Rossi T., Lixi S., **Puricelli S.**, Grosso M., Faedo D., Casadei S.
Fuel consumption and exhaust emissions from Euro 6d vehicles fueled by innovative LPG/DME blend
(2024) Journal of the Energy Institute, 117, 101851
DOI: 10.1016/j.joei.2024.101851

Van den Oever, A., **Puricelli S.**, Costa D., Thonemann N., Philippot M.L., Messagie M.
Revisiting the challenges of ozone depletion in Life Cycle Assessment
(2024) Cleaner Environmental Systems, Volume 13, June 2024, 100196

DOI: 10.1016/j.cesys.2024.100196

Van den Oever A., **Puricelli S.**, Costa D., Thonemann N., Philippot M.L. Messagie M.
Dataset with Updated Ozone Depletion Characterization Factors for Life Cycle Impact Assessment
(2024) Data in Brief, Volume 57, December 2024, 111103
DOI: 10.1016/j.dib.2024.111103

Year 2023 (2 publications)

Koroma M.S., Costa D., **Puricelli S.**, Messagie M.
Life Cycle Assessment of a novel functionally integrated e-axle compared with powertrains for electric and conventional passenger cars
(2023) The Science of The Total Environment, Volume 904, 2023, 166860
DOI: 10.1016/j.scitotenv.2023.166860

Puricelli S., Casadei S., Bellin T., Cardellini G., Cernuschi S., Costa D., Faedo D., Lonati G., Rigamonti L., Rossi T., van den Oever A.E.M., Messagie M., Grosso M.
Reducing the environmental impacts of passenger cars: a comparison between electricity and biofuels
(2023) Transportation Research Procedia, 72, art. no. Reducing the environmental impacts of passenger cars: a comparison between electricity and biofuels, pp. 1388 - 1395
DOI: 10.1016/j.trpro.2023.11.602

Year 2022 (1 publications)

Puricelli S., Costa D., Rigamonti L., Cardellini G., Casadei S., Koroma M.S., Messagie M., Grosso M.
Life Cycle Assessment of innovative fuel blends for passenger cars with a spark-ignition engine: A comparative approach.
(2022) Journal of Cleaner Production, 378, 134535
DOI: 10.1016/j.jclepro.2022.134535

Year 2021 (3 publications)

Puricelli S., Casadei S., Bellin T., Cernuschi S., Faedo D., Lonati G., Rossi T., Grosso M.
The effects of innovative blends of petrol with renewable fuels on the exhaust emissions of a GDI Euro 6d-TEMP car
(2021) Fuel, 294, 120483
DOI: 10.1016/j.fuel.2021.120483

Puricelli S., Cardellini G., Casadei S., Faedo D., van den Oever A.E.M., Grosso M.
A review on biofuels for light-duty vehicles in Europe
(2021) Renewable and Sustainable Energy Reviews, 137, 110398
DOI: 10.1016/j.rser.2020.110398

Puricelli S., Marmiroli B., Grosso M., Melià P.
Life cycle inventories for modelling the production of battery electric vehicles in the European life cycle assessment studies
(2021) Conference proceedings of XIV Convegno della Rete Italiana LCA - IX Convegno dell'Associazione Rete Italiana LCA, p. 392-401

Year 2016 (1 publication)

Iannicelli Zubiani E. M., Giani M. I., Recanati F., Dotelli G., **Puricelli S.**, Cristiani C.

Environmental impacts of a hydrometallurgical process for electronic waste treatment: a life cycle assessment case study

(2016) Journal of Cleaner Production, Volume 140, Part 3

DOI: 10.1016/j.jclepro.2016.10.040

Part XII – Non-academic professional experience

Year	Company	Role	Main activities
2015	Bluestar Siliconi Italia Srl Caronno Pertusella (VA) Italy	Intern	Update of safety data sheets in coherence with CLP rules, quality assurance, and 5S auditing.
2015-2017	Immark Italia Srl Cornaredo (MI) Italy	Responsible for production, quality, environment, and maintenance	Data collection and material/waste flow analysis, continuous improvement, managing ISO 9001 and ISO 14000 procedures, spare parts purchasing, maintenance planning, and workers' health and safety representative.
2017-2018	Orsa Foam SpA Gorla Minore (VA) Italy	Intern	Wastewater treatment, fire systems, waste management, safety

DICHIARAZIONE SOSTITUTIVA DI CERTIFICAZIONE (art. 46 e 47 D.P.R. 445/2000)

il sottoscritto Stefano PURICELLI, CF PRCSFN89T17E801W, ai sensi e per gli effetti degli articoli 46 e 47 e consapevole delle sanzioni penali previste dall'articolo 76 del D.P. R. 28 dicembre 2000, n. 445 nelle ipotesi di falsità in atti e dichiarazioni mendaci, dichiara che tutte le informazioni riportate nel presente curriculum vitae corrispondono a verità.



Inveruno, 27/08/2026