

SERGI ARFELIS ESPINOSA, Ph.D., Chemical Engineer, LCA

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Location: Tarragona, Spain (open to relocation)

PROFESSIONAL SUMMARY

PhD in Environmental Engineering. With 10+ years of experience across academia, multinationals, and startups in sustainability assessment, green chemistry, and industrial processes. Proven expertise in LCA strategy, carbon footprint measuring, and process optimization for the petrochemical, plastics and biofuels sectors, among others. Strong project management skills with a track record of leading cross-functional teams and delivering impactful solutions in sustainability and Industry 4.0.

PROFESSIONAL EXPERIENCE

LCA PROJECT MANAGER, Ravago (Sep 2024 – Present):

Develop and implement LCA strategies for sustainable product portfolios, aligning with EU sustainability goals

Collaborate with cross-functional teams to integrate carbon footprint assessments into product design and supply chains

POSTDOCTORAL RESEARCHER, University Rovira I Virgili (Mar 2025 – Present):

Conducting Life Cycle Assessment (LCA) studies to evaluate the environmental performance of PHB bioplastic production processes.

PROCESS ENGINEER, Deasyl (Apr 2024 – Sep 2024):

Leading the scale-up and process intensification of a Biodiesel Pilot Plant (TRL5) with industrial partners (Prio)

Conducting environmental and economic assessments with the support of advanced simulation tools and experimental research (TRL4)

Developing and managing relationships with universities (URV, PUC,...) and industrial partners (Prio, WAB group)

RESEARCHER, UNESCO Chair in LCA and Climate Change ESCI-UPF (Jun 2021 – Apr 2024):

Authored and published peer-reviewed papers in top-tier journals; presented findings at international conferences ([Orcid](#))

Participation in the public debate: COP27, Scientific International Conferences

LCA, Carbon Footprint and EPD consultancy for external companies in the chemical, steel, hydrogen, and ports sectors

Lecturer of Chemical principles of LCA and Carbon Footprint courses in the M.Sc. Sustainability Management from UPF-BSM

PLANT ENGINEER, The Dow Chemical Company (Sep 2018 – Jun 2021):

Supporting the operations team in the Turnaround of the Polyethylene and Octene production plants

Other professional experiences:

Digital Strategy Manager in CuidaPro from Feb 2022 to Sep 2023 (own entrepreneurial venture)

Lecturer in the Postgraduate on Sustainability Transition and Climate Emergency in the subject of Organisational Environmental Footprint of ESCI-UPF from Jan 23 to Mar 23

Final Master Thesis director in the UNIR from Mar 2022 to Mar 2023

Chemical Engineer Intern working in Energy Efficiency Projects in Clariant from Feb 2018 to Jun 2018

Maintenance Engineer Intern in TDE-AIE from Jul 2017 to Aug 2017

EDUCATION

Ph.D. with Industrial and International mentions (UPC, Oct-2021 – Oct-2024): Life Cycle Assessment as a Tool for the Industrialisation of Chemical and Mechanochemical Processes

M. Sc. Industry 4.0 (UNIR, Mar-2020 to Apr-2021), 60 ECTS. **M. Sc. Thesis:** How can Industry 4.0 enablers help closing the loop on Plastics?

M. Sc. Environmental Engineering and Sustainable Energy (URV, Oct-2018 to Jan-2020), 90 ECTS. **M. Sc. Thesis:** Proposals to improve a temporary plant for catalyst recovery in an Octene plant (based in The Dow Chemical Company)

B. Sc. Chemical Engineering (URV, Sep-2013 to Jun-2018), 240 ECTS. **BS Thesis:** Implementation of energy savings improvements in the plant of services (based in Clariant)

Ethics for Engineers and Researchers (UPC, Mar-2022 to Jul-2022), 25 hours

Scientific Writing (Stanford University, online, Sep-2021 to Dec-2021), 27 hours

Course in Python (UNIR, Apr-2021 to May-2021), 3 ECTS

Course in Applied techniques of energy efficiency in industrial processes (UCLM, Jun-2020 to Aug-2020), 50 hours

SKILLS

Softwares: AspenPlus, CosmoRS, LCA for Experts (GaBi), SimaPro, OpenLCA, Office package, others

Other skills: Ability to learn; Ability to teach; Attention to detail; Teamwork; Project planning (Gantt, SCRUM, others...)

Languages: English (C1 Level & 6 months working in the hospitality sector in London); Italian & French (beginner)

AWARDS

- **Finalist in the Magda Medir-Essity award**, as one of the five best students in the Leadership subject in the 4th year of Chemical Engineering degree. (URV, Sep-2017 to Jun-2018)

- **Team Member in one of the top 20 out of 500 teams of the X-Culture international business competition** on developing a high-quality business plan for a multinational company. (URV, May-2016)