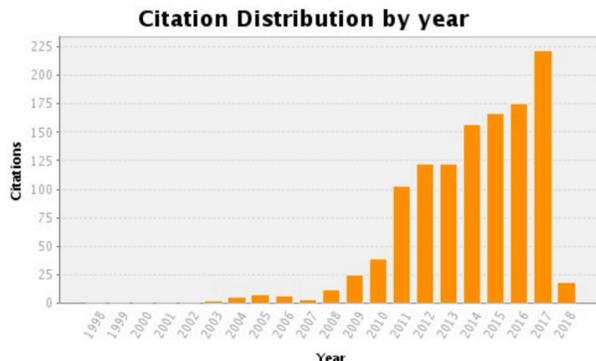


Gara Villalba Méndez



h-index: 17

Total publications: 51

Total funding received:

-840,000€ as PI

-2 million€ as collaborator

6 PhD supervisions completed

Current team: 2 postdocs, 5

PhDs, 1 technician.

CONTACT INFORMATION

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EDUCATION

Ph.D., Department of Chemical Engineering, February, 2003
Universitat de Barcelona, Barcelona, Spain

B.S., Chemical Engineering June, 1998
Massachusetts Institute of Technology, Cambridge, MA

PROFESSIONAL EXPERIENCE

Associate Professor, Department of Chemical, Biological and Environmental Engineering 2013-present
Universitat Autònoma de Barcelona, Spain

Assistant Professor, Department of Chemical Engineering 2008-2013
Universitat Autònoma de Barcelona, Spain

Post-Doctoral Research Associate, Department of Chemical Engineering and 2004-2008
Institute of Environmental Science and Technology, Universitat Autònoma de Barcelona, Spain

Research Assistant, Department of Chemical Engineering, Universitat de Barcelona, 1999-2004
Spain

RESEARCH INTERESTS

My aim is to strengthen research at the interface between environmental science and environmental systems analysis, so that industrial activity can be designed and reconfigured in terms of energy and resource availability. I apply Industrial ecology tools and methodologies such as material and energy flow analysis, including exergy analysis and life cycle analysis to evaluate systems at different scales, with special emphasis on waste management and urban water cycle; urban metabolism; exergy analysis applied to resource accounting and process efficiency; special emphasis on the use of critical metals in renewable energy and economic implications; integrated environmental evaluation of new technologies.

RESEARCH GRANTS

- “Integrated Greenhouse Rooftops: Symbiosis of energy, water, CO₂ emissions with the building- towards food security in a circular economy” Role: co-investigator. UAB: 145,000€. 12/2016-12/2019. Reference: CTM2016-75772- C3-1-R PK614318.
- “Marie Sklodowska Curie International Outgoing fellow (URBANCO2FLUX), 2015-2018. Funding: 260,000€. Role: principal investigator. Hosting institution: Universitat Autònoma de Barcelona, Outgoing hosting institution: UC Merced.
- “GROOF- Greenhouses to reduce CO₂ on Roofs.” funded by EU INTERREG, NWE programme project 4. UAB:95,293€, Total: 2.9 million €. September 2017-December 2021. Role: collaborator.
- “Maria de Maeztu Unit of Excellence (MDM-2015-0552), funded by Ministry of Science and Innovation of Spain, 2 million €, reference MDM-2015-0552. 2016-2019. Role: member of the steering committee.
- “Fertile Cities- contribution of greenhouse roofs to urban sustainability.” Role: co-investigator. Funded by the Spanish Ministry of a Competitive Economy, UAB: 130,000€. 12/2013- 12/2016. Reference: CTM2013-47067-C2-1-R.
- “MinFuture- Global material flows and demand-supply forecasting for mineral strategies“ Role: principal investigator for UAB. Funded by the European Commission Horizon 2020, UAB: 47,000€ December 2916-December 2018. Reference: H2020-730330.
- “Development and Implementation of a Master Course "Energy Management" in three Libyan Universities", jointly with Hamburg University of Technology. Role: Principal Investigator for the UAB. Funded by the European Commission TEMPUS program. Overall budget: 772,503€; UAB: 57,000€. 544603-TEMPUS-1-2013-1-DE-TEMPUS-JPCR. January 2014- December 2016.
- “PROSUITE: Development and application of a standardized methodology for the PROspective SUstaInability assessment of Technologies” Role: Principal Investigator for the UAB, Co-Investigator in overall collaborative project. Funding source: European Commission, 6.3 million €, UAB: 240,000€, November 2009-November 2013.
- “AQUAENVEC: Assessment and improvement of the urban water cycle eco-efficiency using LCA and LCC.” Role: Co-Investigator. Funding source: LIFE + Environment Policy and Governance of European Commission. 749,486€ total (594,413€ direct), UAB: 120,000€, January 2012-December 2014.
- “Pluvisost: Environmental analysis of rain water harvesting systems.” Reference: CTM 2010-17365. Role: Co-Investigator. Funding source: Spanish Ministry of Science and Innovation. 96,800€, January 2011-December 2013.
- “Ecotech- SUDOE: Environmental & Integrated Assessment of Complex Systems- Biosystems - Water - Land Management.” Role: Co-Investigator. Funding source: Interreg Sudoe European Commission, 1,104,506€ total, UAB: 345,000€, January 2011-October 2013.
- “ZERO WASTE- Low cost zero waste municipality” Role: Co-investigator. Reference: 1G-MED08-533. Funding source: European Commission, 220,367€: November 2010-November 2013.
- “UPGAS-LOWCO2: UP-grading of landfill GAS for LOWering CO₂ emissions.” Reference: LIFE08 ENV/IT/000429. Role: Co-investigator. Funding source: European Commission, total 678,000€ UAB: 42,000€, January 2010-June 2012.
- “MacExe: Improving the management and the reuse of used cooking oils by application of exergy analysis. Reference: A040/2007/2-02.8. Role: Principal investigator. Funding source: Spanish Ministry of the Environment, 42,000€, January 2007-December 2007.
- “Urban indicators for efficiency in water, waste, energy and materials. Reference: A042/2007/3-10.1 Role: Co-investigator, 95,966€ January 2007-December 2008.
- “Social Metabolism: Trends, Conflicts, and Environmental Policies.” Reference: SEJ2006-15219. Role: co-investigator. Funding: Ministry of Education and Science, 78,045€, 2006-2009.

“Integrated Action- Spain-Italy.” Reference: HI2006-0175. Role: Principal investigator. Funding: Ministry of Education and Science, 11,260€, 2007-2008.

“ALARM: methods and protocols for the assessment of large-scale environmental risks.” Reference: GOCE-CT-2003-506675. Role: co-investigator. Funding: European Commission, 190,000€, 2003-2008.

“MECOSIND: funding for establishing a master’s program in Industrial Ecology in Southern Europe.” Reference: FBG-3856. Role: co-principal investigator. Funding: Interreg of the European Commission, 401,000€ total, UAB: 97,000€, 2004-2006.

ACADEMIC AND PROFESSIONAL AWARDS AND DISTINCTIONS

Advanced Research recognition (acreditació Recerca Avançada), Catalan University Quality Assurance Agency (2014)
Research associate, Dept. of Environmental Engineering, UC Merced (2012- present)
2013 TMS Light Metals Division JOM Best Paper Award for “Lithium: Sources, Production, Uses, and Recovery Outlook”, published in the August 2013 edition of JOM
Visiting Scholar, Resources Division, National Park Service of the US, Yosemite National Park (2012)
Six year research track recognition by the Catalan University Quality Assurance Agency (2010)
Visiting Scholar, Bren School of Environmental Science and Management, UC Santa Barbara (2009)
Juan de la Cierva postdoc grant holder (2005-2008)
Graduated PhD program with European Mention Award 2003
Graduated cum laude, PhD program, University of Barcelona 2003
Visiting researcher Center for Management of Environmental Resources, INSEAD, France 2001
Graduated cum laude (BS degree), MIT 1998
National Merit Scholar, MIT (1994-1998)

ARTICLES IN REFEREED JOURNALS

1. **Gara Villalba** and Paul Hoekman, Using Web-Based Technology to Bring Hands-On Urban Material Flow Analysis to the Classroom. *Journal of Industrial Ecology*, in publication phase.
2. †Pere Llorach; Pere Muñoz; †M. Rosa Riera.; Xavier Gabarrell; Joan Rieradevall; J.I. Montero; **Gara Villalba**. N₂O emissions from protected soil-less crops for more precise food and urban agriculture life cycle assessments. *Journal of Cleaner Production*, 49:15,1118–1126; doi: 10.1016/j.jclepro.2017.02.191.
3. †Pradeep Kuttuva, Sharachchandra Lele, and **Gara Villalba**. Decentralized Wastewater Systems in Bengaluru, India: Success or Failure? *Water Economics and Policy*, doi: 10.1142/S2382624X16500430.
4. †Anna Petit-Boix, †Elena Eijo-Río, **Gara Villalba**, María Eugenia Suárez-Ojeda, Desirée Marin, Maria José Amores, Xavier Aldea, Joan Rieradevall, Xavier Gabarrell. (2015) Municipal sewer networks as sources of nitrous oxide, methane and hydrogen sulphide emissions: A review and case studies. *Journal of Environmental Chemical Engineering*.
5. †Starr, K.; Gabarrell, X.; **Villalba, G.** (2015) Upgraded Biogas from Municipal Solid Waste for Natural Gas Substitution and CO₂ Reduction - A Case Study of Austria, Italy, and Spain. *Waste Management*, DOI: 10.1016/j.wasman.2015.01.001.
6. †Starr, K; Gabarrell, X.; Talens, L.; **Villalba, G.** (2015). Optimization of Environmental Benefits of Carbon Mineralization Technologies for Biogas Upgrading. *Journal of Cleaner Production* 76(1) 32-41.
7. †Starr, K.; Ramirez, A; Meerman, H.; Gabarrell, X.; **Villalba, G.** (2015). Explorative economic analysis of a novel biogas upgrading technology using carbon mineralization. A case study for Spain. *Energy*, vol 79, 298-309.
8. †Licht, C; Talens, L.; **Villalba, G.** (2015) Global Substance Flow Analysis of Gallium, Germanium, and Indium – Quantification of Extraction, Uses, and Dissipative Losses within their Anthropogenic Cycles. *Journal of Industrial Ecology* 19(5): 890-903.
9. †Anna Petit-Boix, MSc.; David Sanjuan-Delmás, MSc; Sergio Chenel; Desirée Marín; Carles M. Gasol; Ramon Farreny; **Gara Villalba**; María Eugenia Suárez-Ojeda; Xavier Gabarrell; Alejandro Josa; Joan Rieradevall (2015). Assessing the energetic and environmental impacts of the operation and maintenance of Spanish sewer networks from a life-cycle perspective. *Water Resources Management* vol 29, issue 8, pp 2581-2597.

10. †Roberto Quirós, **Gara Villalba**, Xavier Gabarrell (2014). Life cycle assessment of a crop sequence of cauliflower and tomato. *International Journal of Environmental Science and Technology*. DOI: 10.1007/s13762-015-0756-7
11. †Charlie C. Spork, Abel Chavez, Xavier Gabarrell Durany, Martin K. Patel, and **Gara Villalba** (2014). Applying real-time emission factors to increase accuracy in GHG accounting for electricity: a case study for Spain. *Journal of Industrial Ecology* DOI: 10.1111/jiec.12193.
12. David Sanjuan-Delmás; †Anna Petit-Boix; Carles M Gasol; Ramon Farreny; **Gara Villalba**; María Eugenia Suárez-Ojeda; Xavier Gabarrell; Alejandro Josa; Joan Rieradevall (2015). Environmental assessment of drinking water transport and distribution network use phase for small to medium-sized municipalities in Spain. *Journal of Cleaner Production*, vol 87 pp 573-582.
13. †Roberto Quirós, **Gara Villalba**, Xavier Gabarrell, Xavier Font (2014) Environmental assessment of two home compost with high and low gaseous emissions of the composting process. *Resources, Conservation and Recycling* 90 (2014) 9–20.
14. †Anna Petit-Boixa, †David Sanjuan, Carles M. Gasol, **Gara Villalba**, María Eugenia Suárez-Ojeda, Xavier Gabarrell, Alejandro Josa, Joan Rieradevall (2014). Environmental Assessment of Sewer Infrastructures in Small to Medium Sized Cities Using Life Cycle Assessment. *Water Resources Management* vol 28, issue 4, pp 979–997.
15. †Roberto Quirós, Xavier Gabarrell, Xavier Font, Ana García, Jorge Torrente, **Gara Villalba** (2014). " The application of LCA to alternative methods for treating the organic fiber produced from autoclaving unsorted municipal solid waste: Case study of Catalonia." *Journal of Cleaner Production*, DOI: 10.1016/j.jclepro.2014.04.018
16. Vargas-Parra MV, Rovira MR, Gabarrell X, **Villalba G** (2014) Cost-effective rainwater harvesting system in the Metropolitan Area of Barcelona. *Journal of Water Supply: Research and Technology—AQUA*. doi: 10.2166/aqua.2014.108
17. X. Gabarrell; T. Morales-Pinzón; J. Rieradevall; M. R. Rovira; **G. Villalba**; A. Josa, C. Martínez-Gasol; A. C. Dias; D. X. Martínez-Aceves (2014). Plugrisost: a model for design, economic cost and environmental analysis of rainwater harvesting in urban systems. *Water Practice & Technology*, Vol 9 No 2 p. 243-255.
18. †Starr, K.; Gabarrell, X.; **Villalba, G.**; Lombardi, L. (2014). Potential CO₂ Savings through Biomethane Generation from Municipal Waste Biogas. *Biomass and Bioenergy*, vol 62, pp 8-16.
19. **Villalba, G.**; Tarnay, L.; Campbell, E.; Gabarrell, X. (2013) A Life-Cycle Greenhouse Gas Inventory for Yosemite National Park. *Energy Policy*, vol 62, pp 1336-1343.
20. †Roberto Quirós, **Gara Villalba**, Xavier Gabarrell, Pere Muñoz. (2014) Environmental and agronomical assessment of three fertilization treatments applied in horticultural open field crops. *Journal of Cleaner Production*, vol 67, pp 147-158.
21. †Sanjuan Delmás, David; †Petit Boix, Anna; Martínez Gasol, Carles; **Villalba Méndez, Gara**; Suárez Ojeda, María Eugenia; Gabarrell Durany, Xavier; Josa Garcia-Tornel, Alejandro; Rieradevall Pons, Joan. (2013) Environmental assessment of different pipelines for drinking water transport and distribution network in small to medium cities: a case from Betanzos, Spain. *Journal of Cleaner Production*: Volume: 66 p 588-598.
22. †Vargas, V.; **Villalba, G.**; Gabarrell, X. (2013) "Applying exergy analysis to rain water harvesting systems to assess resource efficiency." *Resources, Conservation and Recycling*, 72, March 2013: 50-59.
23. †Valero, JM; **Villalba G.**, Talens Perio, L. (2014) Material Flow Analysis of current mobile phone material recovery processes. *International Journal of Life Cycle Analysis*, 19: 567–579.
24. Talens Perio, L; **Villalba G.**, (2013) Material and energy requirement for extraction and refining of Rare Earth Metals. *The Journal of The Minerals, Metals & Materials Society*. 65 (10) 1327-1340 DOI: 10.1007/s11837-013-0719-8.
25. †Mohammad R. Hoque, **Gara Villalba**, Xavier Gabarrell, Cristina Sendra. (2015) "Exergetic efficiency analysis of construction material manufacturing." *International Journal of Exergy*, Vol. 16, No. 1, 2015, 22-52.
26. Talens Perio, L, **Villalba G.**, Ayres, R. (2013) Lithium: sources, production, uses and recovery outlook. *The Journal of The Minerals, Metals & Materials Society*. 65 (8) 986-996.
27. Talens Peiro, L., **Villalba, G.**, Ayres, R. (2013). "Material flow analysis of scarce metals: sources, functions, end-uses and aspects for future supply." *Environmental Science & Technology*, 47 (6), pp 2939–2947.

28. †Mohammad R. Hoque, Xavier Gabarrell, **Gara Villalba**, Cristina Sendra. (2013) Exergetic Life Cycle Assessment: An Improved Option to Analyze Resource Use Efficiency of the Construction Sector. Sustainability in Energy and Buildings. Smart Innovation, Systems and Technologies Volume 22, 2013, pp 313-321.
29. †Starr, K., X. Gabarrell, **G. Villalba**. (2012). "Life cycle assessment of biogas upgrading technologies." Waste Management 32(5): 991-999.
30. †Mohammad R. Hoque, Xavier Gabarrell, Cristina Sendra, **Gara Villalba**, Laura Talens Peiró, and Teresa Vicent (2012). "Energy Intensity of the Catalan Construction Sector: An Application of Material and Exergy Flow Analysis." Journal of Industrial Ecology, 16 (5): 699-709.
31. **Villalba, G.**; Bueno, S.; Gabarrell, X.; Font, X. (2012) "GHG contribution of sorting plants and mechanical biological treatment plants- case study of Catalonia, Spain." Waste Management, A Glance at the World, 32(10): 1999-2002.
32. Ayres, R. U., L. Talens Peiro, **G. Villalba**. (2011). "Exergy efficiency in industry: where do we stand?" Environmental Science & Technology 45(24): 10634-10641.
33. **Villalba, G.** and †E. D. Gemechu (2011). "Estimating GHG emissions of marine ports—the case of Barcelona." Energy Policy 39(3): 1363-1368.
34. Kennedy, Christopher; Steinberger, Julia; Gasson, Barrie; Hansen, Yvonne; Hillman, Tim; Havranek, Miroslav; Pataki, Diane; Aumnad, Phdungsilp; Ramaswami, Anuradha; **G. Villalba**. (2010). "Methodology for inventorying greenhouse gas emissions from global cities." Energy Policy 38(9): 4828-4837.
35. †Talens Peiró, L., L. Lombardi, **G. Villalba** et al. (2010). "Life cycle assessment (LCA) and exergetic life cycle assessment (ELCA) of the production of biodiesel from used cooking oil (UCO)." Energy 35(2): 889-893.
36. †Tanimoto, A. H., X. Gabarrell Durany, **G. Villalba**. (2010). "Material flow accounting of the copper cycle in Brazil." Resources, Conservation and Recycling 55(1): 20-28.
37. Kennedy, Christopher; Steinberger, Julia; Gasson, Barrie; Hansen, Yvonne; Hillman, Tim; Havranek, Miroslav; Pataki, Diane; Aumnad, Phdungsilp; Ramaswami, Anuradha; **G. Villalba** . (2009). "Green house gas emissions from global cities." Environmental Science & Technology 43(19): 7297–7302.
38. Liu, Y., **G. Villalba**, et al. (2008). "Global Phosphorus Flows and Environmental Impacts from a Consumption Perspective." Journal of Industrial Ecology 12(2): 229-247.
39. †Peiró, L. T., **G. Villalba**, et al. (2008). "Exergy Analysis of Integrated Waste Management in the Recovery and Recycling of Used Cooking Oils." Environmental Science & Technology 42(13): 4977-4981.
40. †Talens Peiró, L., **G. Villalba Méndez**, et al. (2010). "Extended exergy accounting applied to biodiesel production." Energy 35(7): 2861-2869.
41. **Villalba, G.**, Y. Liu, et al. (2008). "Global Phosphorus Flows in the Industrial Economy From a Production Perspective." Journal of Industrial Ecology 12(4): 557-569.
42. **Talens, L.**, **G. Villalba**, et al. (2007). "Exergy analysis applied to biodiesel production." Resources, Conservation and Recycling 51(2): 397-407.
43. **Villalba, G.**, R. U. Ayres, et al. (2007). "Accounting for Fluorine- Production, Use, and Loss." Journal of Industrial Ecology 11(1): 85-101.
44. **Villalba, G.**, L. Ayres, et al. (2006). "A proposal for emission calculations for chemical processes, Part I." Resources, Conservation and Recycling 48(3): 280-299.
45. **Villalba, G.**, M. Segarra, et al. (2004). "Using the recyclability index of materials as a tool for design for disassembly." Ecological Economics 50(3-4): 195-200.
46. Chimenos, J. M., A. I. Fernández, **G. Villalba** et al. (2003). "Removal of ammonium and phosphates from wastewater resulting from the process of cochineal extraction using MgO-containing by-product." Water Research 37(7): 1601-1607.
47. **Villalba, G.**, M. Segarra, et al. (2002). "A proposal for quantifying the recyclability of materials." Resources, Conservation and Recycling 37: 39–53.

†Villalba student author.

REFEREED CONFERENCE PROCEEDINGS, BOOK CHAPTERS, AND REVIEWS

1. X. Gabarrell, X. Font, ME Suarez, **G. Villalba**, R. Farreny, C. Martínez, J. Rieradevall, X. Font; chapter: Residus i Recursos (Waste and Resources), in Tercer Informe sobre el canvi climàtic a Catalunya. Barcelona: Generalitat de Catalunya i Institut d'Estudis Catalans, coordinated by Martín Vide, J. (2016).
2. X. Gabarrell, T. Morales-Pinzón, J.Rieradevall, M.R. Rovira, **G. Villalba**, A. Josa y C. Martínez-Gasol (2013). PLUGRISOST: a model for design, economic cost and environmental analysis of rainwater harvesting in urban systems. To appear in the proceedings of IWA 2013 Asset Management for Enhancing Energy Efficiency in Water and Wastewater Systems - Marbella, Spain 24-26 of April 2013, Conference of the International Water Association.
3. Ayres, R. U., **G. Villalba**, and L. Talens. Recycling Rare Metals, chapter 4 of the *Handbook of Recycling: State of the art for practitioners, analysts, and scientists*, edited by Ernst Worrell and Markus Reuter. Elsevier, ISBN 978-0-12-396459-5.
4. †Colman, S.; Oliver, J.; Farreny, R.; **Villalba, G.**; (2012). CO₂ and the City. Published in proceedings of Rethinking Cities: Framing the Future. 6th Urban Knowledge and Research Symposium. Barcelona, Spain, 8-10 of October 2012.
5. **Villalba, G.**; Talens, L. (2012) "Materials Balance Models", chapter in *Handbook of Regional Science*, edited by Fischer and Nijkamp. Springer, ISBN 978-3-642-23429-3.
6. Ayres, R. U. and **G. Villalba** (2011). Materials Balance Models. *Research Tools In Natural Resource and Environmental Economics*. Edited by Batabyal. World Scientific Publishing Company, ISBN 10 981-4289-22-1

†Villalba student author.

TEACHING EXPERIENCE

Autonomous University of Barcelona (UAB)

PhD and Masters program in Environmental Studies:

Industrial Ecology, theory lecturer

Fall '06-present

BS degree in Chemical Engineering

Chemical Engineering Processes, theory lecturer

Spring '13-present

Chemical Engineering Process Safety, theory lecturer

Fall '08-present

Industrial Processes, theory lecturer

Spring '09-Spring '12

Unit Operations, theory lecturer and problems instructor

Fall '08-present

Chemical Engineering Process Control, problems instructor

Fall '08-Fall '11

Chemical Engineers Lab IV, lab instructor

Fall '08-Fall '11

Masters degree in Chemical Engineering- starting 2014-2015

Sustainability in chemical processes

Fall '14-present

University of Barcelona (UB), Barcelona, Spain

Chemical Engineering Process Design, lab instructor

Fall '02, Fall '03

Metallurgical Physics and Chemistry, lab instructor

Fall '02, Fall '03

Material Science lab, lab instructor

Spring '02

STUDENT AND OTHER SUPERVISION – AUTONOMOUS UNIVERSITY OF BARCELONA (UAB)

Post-Doctoral Supervision

Isabel Ribeiro, Ph. D. (2017-present)

Laura Talens, Ph.D. (2017-present) and (2009-2011)

Completed Ph.D. Supervisions –

"Environmental analysis (life cycle and exergy) of rain water harvesting systems to reduce fresh water demand." Violeta Vargas. Department of Chemical Engineering. CONACYT grant, competitive. Defense date: December 2015.

"Environmental assessment of technologies to treat municipal solid waste and reuse of organic matter for fertilizer application in horticultural crops" Roberto Quiros, defense date: September 2014. CONACYT grant.

"Environmental and Economic Assessment of Carbon Mineralization for Biogas Upgrading" Katherine Starr, defense date: November 2013.

"A study of material and energy metabolism of the construction sector by using material and exergy flow analysis." Mohammed, Hoque. defense date : July 2013.

"Exergy Analysis of Biofuels", Laura Talens, defense date: September 2009

"Environmental Analysis of the use of Greenhouses for horticultural crops", Eric William de Leon, defense date: September 2009. Ford scholarship, competitive.

Ph.D. Supervisions (in progress)–

"Community Metabolism and Carbon Footprint Impact in developing regions" Irais Vasquez. Start date November 2016, expected year of defense 2020.

"Assessing sustainability on resource use in the automotive sector" Marta Iglesias. Start date: September 2016, expected year of defense 2020.

"Modeling CO₂ emissions of sewer networks- case study for the city of Barcelona" Elena Eijo. Expected year of defense: 2017.

"Urban agriculture from a circular economy perspective- optimizing urban metabolism with integrated rooftop greenhouse crop production" Martí Rufi. Start date September 2017, expected year of defense 2021.

"A mosaic approach to explore the food-energy-water nexus in urban areas" Susana Toboso. Start date September 2017, expected year of defense 2021 (FPU competitive grant)

Highlighted Master's Supervision 2012-2017(of 22 completed)

Biraj Adhikari: "Quantifying the nutrient recovery potential from solid urban waste in the Metropolitan Area of Barcelona." (2018).

Ane Echaniz, "Development of an Indicator Based Urban Resilience Assessing Tool and its Application to 12 Global Case Studies" (2017).

Kuttuva, Pradeep: An integrated analysis of the economic, social, institutional and environmental factors affecting Decentralized Urban Wastewater Reuse systems : Insights from Bengaluru, India (2015).

Christina Licht: Global Substance Flow Analysis of Gallium, Germanium and Indium in 2011– Quantification of Extraction, Uses and Dissipative Losses within their Anthropogenic Cycles (2013).

Charlie Spork: Applying real-time emission factors to increase accuracy in GHG accounting for electricity: A case study for Spain. A co-supervision with Utrecht University, The Netherlands (2013).

Anna Petit: Environmental Assessment of Sewer Infrastructures in Small to Medium Sized Cities Using Life Cycle Assessment (2013).

Simon Coleman: "The influence of urban form on GHG emissions at urban level (2012)."

Álvaro Gonzalez: "Characterizing and analyzing municipal solid waste for three Southern European cities: Barcelona, Aveiro, and Marseille (2012)."

Juan Manuel Valero: "Recycling processes for critical metals- material flow analysis and environmental analysis" (2012).

More than 20 Master's Supervisions 2006-2016.

COORDINATION EXPERIENCE

Coordinator of the Joint European Masters Program in Environmental Studies- Cities and Sustainabilities (JEMES-CiSu), led by Technische Universität Hamburg-Harburg (TUHH, Germany), Universitat Autònoma de Barcelona (UAB, Spain), Universidade de Aveiro (UA, Portugal), and Aalborg Universitet (AAU, Denmark). This is a highly competitive two-year program that offers Erasmus Mundus scholarships to degree-holders in Environmental Studies and related areas. (2011-2016)

Coordinator of the local Master's Program in Environmental Studies, Industrial Ecology branch. (2010-2016)