

# GEMMA NOHALES DUARTE

**Member of ENT since 2023**  
**Consultant and coordinator of projects on waste**



## EDUCATION

- 2003 - 2010. Master in Environmental Intervention: person, society and management (UAB-UB). (Postgraduate in Social and Environmental Analysis and Intervention, 2003-2004 + Postgraduate in Environmental Management in Business and Public Administration, 2004-2005 + Master's thesis on "Action plan for the implementation of door-to-door collection in Sant Just Desvern", 2010).
- 1999 - 2003. Degree in Environmental Sciences from the Autonomous University of Barcelona. Final degree project on "Simulation and calculation of waste management indicators of the AMB's municipalities and improvement of the BCNecology's SIMUR waste management simulator".



## PREVIOUS EXPERIENCE

- February 2019 - December 2022 - Waste Agency of Catalonia. Technician at the Dept. of Selective Collection Promotion.
- November 2003 - January 2019 - Urban Ecology Agency of Barcelona-BCNecology. Project coordinator in the Waste and Materials Cycle Area.



## MOST RELEVANT AREAS OF EXPERTISE

- Strategies and plans for prevention, PxR and waste management.
- Management of bio-waste and textile fraction.
- Individualized collection models and identification systems.
- Improvement, design and monitoring of collection systems.
- Simulation models, indicators and environmental analysis.
- Consultancy for public administration, management of subsidies and European projects.
- Knowledge of communication, training, fair taxes and fees, and personal data protection applied to waste management.



## ENT PROJECTS

- Online capacity-building programme on the application of technologic and digital solutions in integrated municipal waste management. Medcities | 2025.
- Fostering innovative and sustainable bio-waste management and circular bio-economy in the Mediterranean area - CirBioWaste. European Commission | 2025 - 2026.

- LIFE4EPR: towards harmonized Extended Producer Responsibility schemes across the EU. Comisión Europea | 2025 - 2027.
- Review of the State Waste Prevention Program 2014-2020. Ministry for Ecologic Transition and Demographic Challenge | 2024.
- Study of collection models in other cities - Barcelona City Council. Barcelona City Council | 2024.
- Training sessions on generation payment systems and/or fair rates for Hobeki. HOBEKI ELKARTEA | 2024.
- Fair waste taxation system in the Mediterranean region: key aspects that can support the implementation of efficient waste management solutions. Medwaves | 2023 - 2024.
- Review of the ARC textile management guide. Datambient | 2023.
- Compiling information on waste management costs in two Spanish Local Authorities. Stichting Zero Waste Europe | 2023.
- Update of the Specifications and the Economic Study of the Sant Just Desvern waste collection service. Sant Just Desvern City Council | 2023.
- LIFE BIOBEST - LIFE-2021-PREP-NATURA. European Commission | 2022 - 2026.



## PREVIOUS MAIN PROJECTS

- Technical tasks in the Department of Selective Collection Promotion. Waste Agency of Catalonia | 2019 - 2022.
  - > Subsidy management: preparation of the bases, creation of the application forms and justification and complementary documentation, advice to local entities, evaluation of the applications and projects, evaluation of the justifications and technical reports of payment, creation and follow-up of the project indicators for the call for Innovation Public Procurement (IPP).
  - > Participation in the working group with the SOC to create a specific subsidy for new jobs addressed to municipal waste management technical personnel.
  - > Management of the characterizations of the bio-waste fraction for public collection circuits: supervision of the circuit forms updating, planning, facility destination changes and incidents, monitoring and evaluation of results and information to local entities.
  - > Advice and support to local entities in the province of Barcelona, especially in the municipalities of AMB and Baix Llobregat. Monitoring of the implementation of new collection models and their results.
  - > Preparation of a monitoring indicators panel for the eContainer models in collaboration with the AMB. Monitoring and evaluation of the results presented by the municipalities.
  - > Participation in the working group with the AMB and the DiBa to coordinate the "Meetings of cities and towns to improve selective collection" (working groups of DtD and eContainers models) within the framework of the Network of Cities and Towns to Sustainability.
  - > Management of textile fraction tasks:
    - > Monitoring of managers and operators, creation of the module for textile collection data reporting in the SDR and informed date monitoring.
    - > Coordination of municipal textile statistical data with the Observatory Department.

- > Monitoring of the textile managers annual declarations DARIGs and preparation of the balance sheet and management results.
  - > Monitoring of textile collection tax refund, resolution of queries from the municipalities and updating of the refund procedure delegations.
  - > Creation of the new section of the Current Status Declaration (DEA) on the textile collection model and monitoring of the data provided by local entities.
  - > Collaboration with the Prevention Department on textile waste prevention issues.
  - > Participation in the working groups of the Pact for Circular Fashion: sessions to draft the pact and working group on pilot projects implementation for improving or introduce new textile collection models.
  - > Preparation of the personal data protection contents of the Life RethinkWaste project, preparation of the data protection impact assessment for the new waste law of Catalonia, advice to municipalities and especially those from the AMB.
  - > Technical support for the tasks of the Life RethinkWaste project, especially about courses and advice to local authorities on fair fees and support for Sant Just Desvern municipality.
  - > Standard waste collection and management ordinance and standard fiscal ordinance on fair fees. Participation in the working group with the DiBa-ORGT on the adaptation of fees to the new waste regulations and the application of fair fees.
  - > Modification and update of the Current Status Declaration (DEA) on municipal waste management in the SDR.
  - > Pilot tests on a new methodology for residual fraction characterizing and the establishment of the Catalan municipal waste composition.
  - > Participation in the elaboration of the new Catalan waste law in the proposal of initial articles sheets and the review of the written articles.
  - > Participation in the contributions to the new Spanish waste law and the Royal Decree on packaging.
  - > Participation in the content proposals for the Municipal Waste Platform webinars and review of the platform's experience sheets.
  - > Participation in the digital SDDR working group.
- SUBTRACT, Interreg Europe Programme. Umbrian Regional Waste and Waster Agency (Project Leader) | 2019-2023. Tasks: collaboration with the Prevention Department of the ARC in the preparation of the Action Plan for the competitiveness of reuse centers in Catalonia, participation in meetings, contributions to textile fraction management and projects, management and monitoring of the textile fraction actions developed by the ARC and defined in the action plan.
  - RethinkWaste, Life Programme. Etra S.p.A (project leader) | 2019-2022. Tasks: creation of the personal data protection module of the Toolkit to promote the introduction of KAYT and PAYT schemes, courses and advice to local authorities in Catalonia on fair fees and data protection, grants to local authorities to promote fair fees implementation, accompaniment and advice to Sant Just Desvern in the project implementation, support in other technical tasks and contributions to documents and outputs.
  - Waste4Think “Moving towards Life Cycle Thinking by integrating Advanced Waste Management Systems”, H2020 Programme. Deusto Tech (project leader) | 2016-2019. Tasks: Coordination of the implementation of social programs in the project pilots, advice for the improvement of waste management models through the implementation of innovative solutions, including ICTs.

- Advice and accompaniment for the evaluation of tender offers and allegations response report for the contract for waste collection services with eContenedores and street cleaning of Sant Just Desvern. Sant Just Desvern Council | 2018. [Coordination]
- Advice and support for the extension period negotiation of the waste collection and street cleaning services contract of Sant Just Desvern. Sant Just Desvern Council | 2018. [Coordination]
- Technical specifications and economic study for the monitoring and communication contract tender for waste collection services with eContainers and street cleaning of Sant Just Desvern. Sant Just Desvern Council | 2018. [Coordination]
- Technical specifications and economic study for the Door-to-Door and containers waste collection service contract tender of Arenys de Mar. Arenys de Mar Council | 2018. [Co-ordination]
- Technical specifications, economic study and pilot tests of locked containers for the contract tender for waste collection services with eContainers and street cleaning of Sant Just Desvern. Sant Just Desvern Council | 2017-2018. [Coordination]
- Technical advice and supervision of the work to define the waste collection model and service for Santiago de Compostela. Santiago Compostela Council | 2017-2018. [Coordination]
- Local waste prevention plan of Arenys de Mar. Arenys de Mar Council | 2017-2018.
- Advice on the management models and implementation of the Integrated Waste Plan of Extremadura 2016-2022. Government of Extremadura | 2017-2018.
- Roadmap on the Strategy for selective collection improvement of Santa Maria de Palautordera. Santa Maria de Palautordera Council | 2017-2018. [Co-coordination]
- Study and report for requesting ARC's grant on Bio-waste and Waste Prevention for the implementation of a new Door-to-Door and eContainers collection model in Avià. Avià Council | 2017. [Coordination]
- Waste management plan for the Valle Norte del Lozoya (Madrid A. C.). Services Commonwealth of Valle Norte del Lozoya | 2016. [Coordination]
- Design study update for Door-to-Door collection service of Sant Just Desvern. Sant Just Desvern Council | 2016. [Coordination]
- Implementation and monitoring of the Door-to-Door and container collection system and service of the Arenys de Mar. Arenys de Mar Council | 2014-2015.
- Creation and promotion of the "MEDcompost Network" and development of its website within the framework of the SCOW project | 2014-2015. [Coordination]
- SCOW-Selective collection of organic waste in tourist areas and valorisation in small scale composting plants- ENPI CBC MED Programme. BCNecology (project leader) | 2012-2015. €5M budget and 8 partners. Tasks: general, technical, administrative and financial coordination, technical content and outputs preparation, application of the project in the Pallars Sobirà region (implementation of Door-to-Door collection in the valley areas, collection of the organic fraction and a small-scale composting plant of 750t/y). [Coordination]
- Dissemination, training and advice service on the use of the SIMUR waste management simulator. Environment Ministry of Spain | 2012-2013. [Coordination]
- Study of national instruments and strategies for waste prevention. Environment Ministry of Spain | 2012-2013. [Coordination]

- Study on the implementation of Door-to-Door collection model in Barcelona. Barcelona City Council | 2011-2012.
- Landfill and waste incineration tax in Catalonia: Evaluation and proposals. Waste Agency of Catalonia | 2011-2012.
- Bio-waste management and selective collection Guide. Environment Ministry of Spain | 2010-2012. [Co-coordination]
- Environmental assessment of different waste management models. Analysis of real cases using the SIMUR waste management simulator and adaptation of the tool. Environment Ministry of Spain | 2011. [Coordination]
- Technical specifications and economic study for the contract tender for containers waste collection and street cleaning services of Sant Just Desvern. Sant Just Desvern Council | 2011. [Coordination]
- Redesign of the Door-to-Door collection system proposal and economic study and evaluation of the underground container system extension of Sant Just Desvern. Sant Just Desvern Council | 2011. [Coordination]
- Design and implementation of the Waste Prevention and Management Web Portal of the Environment Ministry. Environment Ministry of Spain | 2011. [Coordination]
- Municipal Waste Prevention Calculator. Waste Agency of Catalonia | 2011.
- CAT Med – Change Mediterranean Metropolis Around Time, MED programme. Barcelona City Council | 2010-2011. Tasks: participation in the definition of waste management contents and indicators.
- Local waste prevention plan of Barcelona. Barcelona City Council | 2010. [Coordination]
- Local waste prevention plan of Tiana. Tiana Council | 2010. [Coordination]
- Drafting of the urban planning criteria and scheme of the Levante Sector of Figueres. Figueres Council | 2010.
- Advisory service to the municipalities of Catalonia on waste management models. Waste Agency of Catalonia | 2010. [Co-coordination]
- Urban Sustainability Indicators Plan. Environment Ministry of Spain | 2010.
- Door-to-Door collection system scenarios design, economic study and tender technical specifications for waste collection and street cleaning services of Sant Just Desvern. Sant Just Desvern Council | 2009-2010. [Co-coordination]
- Urban Waste Management Plan of Galicia 2010-2020 and Strategic Environmental Assessment. Government of Galicia | 2009-2010. [Co-coordination]
- Design and implementation of the PROGREMIC web portal. Waste Agency of Catalonia | 2009-2010.
- Adaptation and application of the SIMUR waste management simulator to the Vitoria-Gasteiz municipality. Vitoria-Gasteiz Council | 2009-2010. [Co-coordination]
- Development of methodological resources and instruments for the elaboration of the Climate Change Local Strategy. Biodiversity Foundation | 2009-2010.
- Advice and coordination of the characterization tasks and the calculation methodology for the waste composition of Catalonia. Waste Agency of Catalonia | 2008-2010.
- Environmental evaluation of the pneumatic collection system of Barcelona. Barcelona City Council | 2009. [Coordination]

- Environmental evaluation of the waste collection scenarios of Sant Just Desvern. Sant Just Desvern Council | 2009. [Coordination]
- Report on environmental assessment and Municipal Urban Planning review of A Coruña. A Coruña Council (B. Architecture and Urbanism SL) | 2008.
- Local municipal waste prevention plans guide. Waste Agency of Catalonia | 2008. [Coordination]
- Design, programming and testing of the SIMUR waste management simulation software (Urban Information System and Modelling applied to waste). Pilot test with various municipalities of Catalonia. Waste Agency of Catalonia | 2007-2008. [Co-coordination]
- Advice and coordination of the characterization tasks and the calculation methodology of municipal waste composition of Catalonia. Waste Agency of Catalonia | 2005-2006.
- Municipal Waste Management Programme of Catalonia 2007-2012 and Strategic Environmental Assessment. Waste Agency of Catalonia | 2005-2006.
- Technical specifications and economic study for the waste collection and street cleaning services contract of Mataró. Mataro Council | 2005.
- Initial design and test of the SIMUR waste management simulator in Excel format. Pilot test with various AMB's municipalities. AMB | 2002-2006.



## MAIN PUBLICATIONS

- Nohales, G., Puig-Ventosa, I. Models of Separate Collection for High Quality Composting, pp. 372-408, <https://doi.org/10.1039/9781837673650-00372> Chapter 14 in Sánchez, A., Gea, T., Font, X., Artola, A., Barrena, R., Moral-Vico, J. (Eds.) Composting: Fundamentals and Recent Advances. Royal Society of Chemistry, 2025. ISBN: 978-1-83767-162-5 <https://books.rsc.org/books/edited-volume/2290/chapter-abstract/8454360/Models-of-Separate-Collection-for-High-Quality>
- Nohales Duarte, D., Martínez Sánchez, V., Pellicer García, P., Puig Ventosa, I. (2023) Desafíos en el ámbito local en materia de economía circular y residuos. Equipamientos y Servicios Municipales, 203: 18-23.
- Plana et al. (2019). “Guía práctica para la aplicación del compostaje comunitario como alternativa a la gestión local de los biorresiduos” (“Practical guide for the application of community composting as an alternative to bio-waste local management”), Fertile Auro.
- Alonso et al., (2017). “Claves para conseguir los objetivos de prevención y reciclaje de residuos municipales: sistemas de recogida, educación ambiental y fiscalidad” (“Keys to achieve municipal waste prevention and recycling objectives: collection systems, environmental education and taxation”). Deusto Social Impact Briefing sobre Waste4Think. Universidad de Deusto.
- Agència d'Ecologia Urbana de Barcelona, Agència de Residus de Catalunya (2008). “Guia per a l'elaboració de plans locals de prevenció de residus municipals” (“Guide for the preparation of municipal waste prevention local plans”). Agència de Residus de Catalunya.
- Agència d'Ecologia Urbana de Barcelona, MAGRAMA (2012). “Guía para la implantación de la recogida separada y gestión de biorresiduos de competencia municipal” (Guide for the implementation of municipal bio-waste separate collection and management”). Ministerio de Medio Ambiente de España.

- Rueda et al. (2012). “El Urbanismo ecológico. Su aplicación en el diseño de un ecobarrio en Figueres” (“Ecological Urbanism. Application in the design of an eco-neighborhood in Figueres”). Agència d’Ecologia Urbana de Barcelona.
- Nohales, G., Masanas, M., Grima, A. (2012). “Full de ruta dels Plans Locals de Prevenció de residus municipals” (Roadmap for municipal waste prevention local plans”). Punt Ambiental, Col·legi d’Ambientòlegs de Catalunya.
- Nohales, G.; Vila, M. (2011). “Planes locales de prevención de residuos municipales” (“Municipal waste prevention local plans”). RESIDUOS Magazine, number 124.
- Rueda, S.; Nohales, G.; Vila, M. (2005). “Modelización de sistemas de gestión de residuos” (“Waste management systems modelling”). RESIDUOS Magazine, number 83.



## MAIN ATTENDED COURSES

- Specialization course on project management. Deusto Training- International University of Valencia | 2022-2023.
- Course on Teleworking. Public Administration School of Catalonia | 2022.
- Course on Environmental Taxation applied to waste (fair fees) and other incentive systems (KAYT) and Course on fair fees systems and Know as you Throw (KAYT), ARC-Retinkwaste | 2021 and 2022.
- Course on decentralized bio-waste management through community and scale composting. COAMB-Fertile Auro | 2019.
- Course on practical tools for the development and management of European projects (session on state aid and FEDER Funds). Kim | 2018.
- Study tour in northern Italy on door-to-door collection. COAMB | 2015 and 2016.
- Workshop on international project financing tools. COAMB | 2014.
- Study tour in northern Italy on waste management. ISWA | 2013.
- Course on Strategic environmental management. Consulting Engineers, S.A. - Environment | 2009.
- Course on Strategic environmental assessment. IMF | 2007.
- Other diverse training: waste courses of COAMB, seminars and webinars on waste.



## MAIN CONTRIBUTIONS IN COURSES, SEMINARS AND CONFERENCES

- 8th October 2024. “Training session on Extended Producer Responsibility”. Ripollet City Council.
- 5th May 2022. “Promotion of individualized models and fair taxes in Catalonia”. Webinar: “Rethink urban waste governance through KAYT and PAYT workshop”. ACR+-Ecomondo.
- 23rd February 2022. “PAYT & waste financing schemes-experiences from Catalonia.” Webinar: “Peer-learning Session: Separate biowaste collection & PAYT.” Policy Learning Platform. Interreg programme.
- 20th October 2021. “O modelo PAYT na Catalunha, Espanha” (“PAYT model in Catalonia, Spain”). Webinar: “Pensar e Agir, Uma Agenda Mobilizadora 2030. Ciclo Webinares” (“Think and Act, A Mobilizing Agenda 2030. Webinars Cycle”). Lipor.

- 22nd June 2021. “PAYT with prepaid bags in Argentona Catalonia (Spain)” Webinar: “Designing a PAYT system for the Municipality of Burgas. Online matchmaking sesión”. WINPOL.
- 3rd June 2021. “Actualització de l'estat de desplegament de l'Estratègia de gestió de residus tèxtils i balanç dels resultats de la gestió” (“Update on the deployment status of the Textile Waste Management Strategy and management results balance”). Webinar: “Prevenió i recollida selectiva de residus tèxtils” (“Prevention and selective collection of textile waste”). Plataforma Residus Municipals - ARC.
- 14th y 19th November 2019. “Recogida de Residuos Municipales” (“Municipal waste collection”). Webinar. UPNA-Josenea Ambiental-Ramon Plana-Luar.
- 13th Mai 2019. “PAYT & waste financing schemes-experiences from Catalonia” Webinar: “Importance of PAYT in the new Waste Framework Directive: results from the Waste4Think project. Pay As You Throw Workshop”. ARC+ - Waste4Think.
- 2nd-3rd October 2018. “La recogida selectiva en origen de la fracción orgánica: sistemas de recogida y resultados, instrumentos de gestión, diseño del PaP” (“Organic fraction selective collection: collection systems and results, management instruments, D-t-D design”). Conference: “Economía circular y gestión de residuos” (“Circular economy and waste management”). Consorcio Vega Baja.
- 7th June 2018. “Anàlisi de les noves tecnologies i innovació al servei de la recollida selectiva” (“New technologies and innovation analysis at the service of selective collection”). Conference: “Noves tendències en recollida selectiva a Catalunya” (“Selective collection new trends in Catalonia”). ARC. Barcelona.
- 18th January 2018. “Introduction to the different models for local composting. Main technical, logistic and social factors for success”. Webinar: “Possibilities of decentralised bio-waste management through local composting”. ACR+- BCNEcologia.
- 3rd November 2017. “Elements per l'optimització i seguiment dels models de recollida” (Elements for the optimization and monitoring of collection models”). Course: “Optimització de serveis/ Sistemes d'identificació de l'usuari i pagament per generació”. (“Optimization of services / User identification systems and payment by generation”). COAMB. Barcelona.
- 27th October 2017. “La recogida selectiva en origen de la fracción orgánica: sistemas, propuestas y tendencias” (“Source selective collection of the organic fraction: systems, proposals and trends”). Conference: “Formación hacia a un modelo descentralizado en la gestión de residuos” (“Training towards a decentralized model in waste management”). Consorcio para la Gestión de Residuos (COR). Xàtiva.
- 3rd February 2017. “Proyecto SCOW en la Comarca del Pallars Sobirà (CAT). Elementos clave para una gestión de residuos eficiente” (“SCOW project in the Pallars Sobirà Region (CAT). Key elements for efficient waste management”). Conference: “Revalorización de Residuos Rurales en la Sierra Norte de Madrid” (Revaluation of Rural Waste in the Sierra Norte de Madrid”). Mancomunidad de la Sierra Norte de Lozoya. Pinilla del Valle.
- 5th May 2017. “Els sistemes de recollida Porta a Porta” (“Door-to-Door recollection systems”). Conference: “Sessions Territorials sobre la Recollida de Residus Porta A Porta” (“Territorial Sessions on Door-to-Door waste collection”). COAMB - Associació de Municipis Porta a Porta de Catalunya. Artés.
- 18th May 2016. “Recollida de Residus Porta a Porta” (Door-to-Door waste collection”). Course: “Licitacions i gestió de contractes” (“Tenders and contract management”). COAMB. Barcelona.
- 5th April 2016. “Gestión de biorresiduos” (Bio-waste management”). Course: “Introducción a los modelos de gestión de residuos urbanos con recogida separada de materia orgánica”

(Introduction to urban waste management models with separate collection of organic matter”). UPNA-COAMB-Ramón Plana. Pamplona.

- 7th October 2015. “Recogida separada de biorresiduos y compostaje descentralizado en zonas mediterráneas: Proyecto SCOW” (“Separate collection of bio-waste and decentralized composting in Mediterranean areas: SCOW Project”) Conference: “CONAMA LOCAL”. CONAMA. Málaga.
- 25th February 2015. “Módulo-4: Las recogidas selectivas como elementos clave” (“Module-4: Selective collections as key elements”). Course: “Mestres Composteiros” (“Composting teachers”). Diputación de Pontevedra. Pontevedra.
- 18th November 2014. “Introducció. Sistemes de recollida, plecs i estudis econòmics” (“Introduction. Collection systems, tenders and economic studies”). Course: “Contractes i licitacions de serveis de recollida de residus i neteja viària” (“Contracts and tenders for waste collection and street cleaning services”). COAMB. Barcelona.
- 16th May-9th June 2014. “Organic Waste Management & Treatment Options”. Webinar: “MSW Webinar Series”. ISWA- Climate and Clean Air Coalition to Reduce Short-Lived Climate Pollutants.

## A<sup>a</sup> | LANGUAGES

- English Advanced Level
- Catalan
- Spanish