

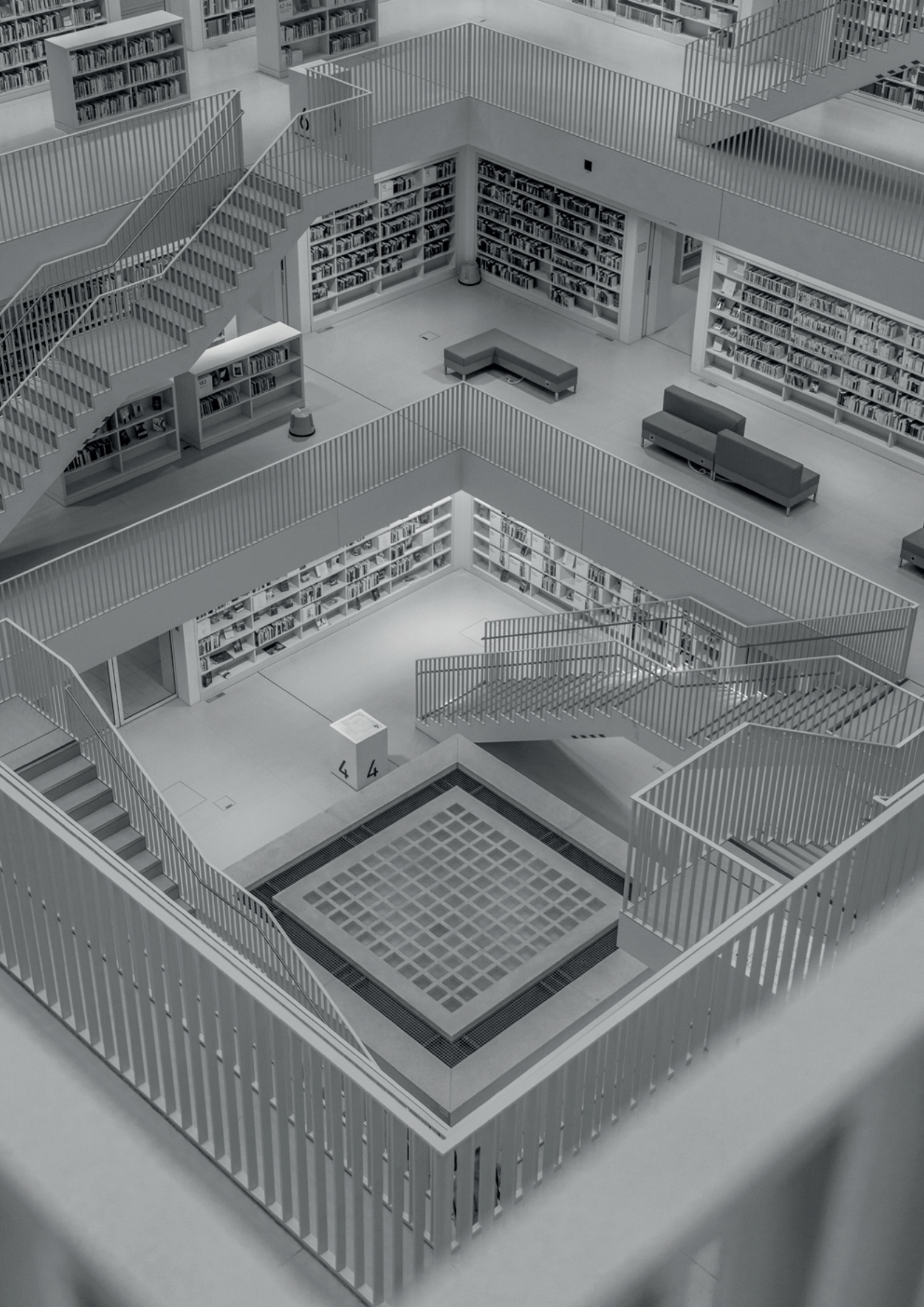
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RESEARCH REPORT 2024





1 RESEARCH ARTICLES

ARTICLES PUBLISHED AND ACCEPTED IN JOURNALS WITH IMPACT FACTOR

Meisterl, K., Sastre, S., Puig-Ventosa, I., Chifari, R., Martínez Sánchez, L., Chochois, L., Fiorentino, G., Zucaro, A. (2024) Circular Bioeconomy in the Metropolitan Area of Barcelona: Policy Recommendations to Optimize Biowaste Management. *Sustainability*, 16, 1208. <https://doi.org/10.3390/su16031208>

Puig Ventosa, I., Calaf Forn, M. (2024) Tendencias en las tasas de residuos por generación. *Tributos Locales*, 170: 258-272.

OTHER RESEARCH PUBLICATIONS IN 2024

Ràfols, R., Galindo, M. and Puig, I. (Coord.) (2024) La situació de les taxes de residus de Catalunya 2023. Agència de Residus de Catalunya.

Puig Ventosa, I. (2024) Sobre el documento del Ministerio de Hacienda en materia de tasas de residuos. *Equipamientos y Servicios Municipales*, 208: 60-63.

Meisterl, K. (2024) Basuras marinas de plástico ¿Por qué están los plásticos en el punto de mira de la UE y del mundo? *RETEMA*, 256: 170-172.

Rozas Valdés, J.A. (coord.); Sánchez, J.A.; Puig, I.; Santander, M.F. (2024) "Impuesto sobre el Depósito de residuos en depósitos controlados, la incineración y la co-incineración", en Libro verde sobre la fiscalidad de Catalunya, p. 116-122. Foment del Treball Nacional, Barcelona.

Patón García, G., Puig Ventosa, I. "Estudio del marco jurídico de las ordenanzas fiscales locales para la gestión de los residuos" *Revista Catalana de Dret Ambiental* Vol. XV. Núm. 2(2024): 1-34.

Martínez Sánchez, V., Puig Ventosa, I. (2024) La circularidad de los paneles fotovoltaicos. *RETEMA*, 259: 164-167.

Ràfols, R., Puig, I. (2024) Las tasas de residuos en España estan lejos de cubrir las obligaciones de la Ley 7/2022. *RETEMA*: 48-51.

Riera, M. *et al.* (2024) Proyecto europeo SCORE de adaptación al cambio climático en zonas costeras. *CONAMA 2024*: 14 pp.

2 OWN PUBLICATIONS

OBSERVATORY ON WASTE TAXATION



Las tasas de residuos en España 2024

Waste charges paid by households and commercial activities in 131 municipalities have been analysed, including all the provincial capitals. This study continues previous analyses performed with data from 2015, 2018, 2019, 2020, 2021, 2022 and 2023.

The report carries out a comparative analysis of the results obtained between 2015 and 2023. To this end, the main indicators used are analyzed, both qualitatively and quantitatively, providing a record of the evolution of waste charges in Spain.

[Observatorio de la Fiscalidad de los Residuos \(2024\) Las tasas de residuos en España 2024.](#)
Fundació ENT.

ECOLOGÍA POLÍTICA JOURNAL



68 Residuos December 2024

This issue of Ecología Política delves into the problem of waste as both a symptom and consequence of an unsustainable economic model rooted in unlimited consumption and growth. Through emblematic cases, such as plastics polluting the oceans or landfills overflowing with disposable clothing, it examines how waste not only contaminates but also reflects deep social and economic inequalities.

Inspired by the environmentalism of the poor and the struggles of waste-picker movements, the articles challenge technocratic solutions that perpetuate environmental injustice and highlight transformative alternatives. Proposals include waste management models grounded in social and ecological justice, degrowth initiatives, and recognition of waste-pickers as key actors in restoring natural cycles.



67 Violencias y extractivismos June 2024

This edition of Ecología Política, explores how the violence of conquest and colonization laid the foundations for the global order that persists today, exacerbated by the rise of «green capitalism» and its growing demand for raw materials to meet energy needs.

Extractivism grows in parallel with illegal activities and drug trafficking, coinciding with the rise of authoritarian governments that, regardless of ideology, promote dispossession and repression policies that harm the environment and social structures.

In response, this issue of Ecología Política highlights the resistances and struggles of environmental defenders who propose alternatives and mobilize imaginations to build a different world. These resistances are essential to confronting violence and seeking other possible worlds.

3 RESEARCH PROJECTS

ENT has carried out projects at various levels (from local to international) and for a large variety of clients (public administrations, NGOs, trade unions, universities, etc.) in different work areas. Our projects are mainly related to the development and implementation of public policies, focussed on their design, analysis and management.

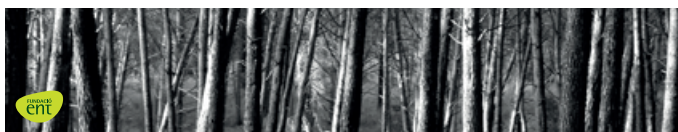
Here are the 2024 highlights:



FAIR WASTE TAXATION SYSTEM IN THE MEDITERRANEAN REGION: KEY ASPECTS THAT CAN SUPPORT THE IMPLEMENTATION OF EFFICIENT WASTE MANAGEMENT SOLUTIONS

Commissioned by the BETA Technological Center

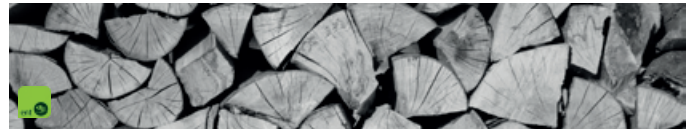
The goal of this project is to analyse state-of-the-art options for waste charging and other forms of waste taxation with the objective to identify key aspects that can support the implementation of efficient waste management solutions in the Mediterranean region.



WOODCIRCLES

Funded by the European Commission

This project is an Innovation Action of the four-year Horizon Europe programme (2023-2027) led by the Danish Technological Institute. The ENT Foundation coordinates the work package on "Sustainability and impact assessment". WOODCIRCLES will develop innovative circular solutions for sustainable wood construction to help reduce Europe's dependence on non-renewable resources, cut GHG emissions, reduce waste generation, and offer long-term carbon sinks and substitution of fossil-based and carbon-intensive products. Based on identified needs and market potentials, the consortium will develop new value chains for upcycling of wood waste materials and optimized design-for-disassembly building system solutions to significantly increase recycling rates of wood in construction.



TECHNICAL ASSISTANCE FOR THE PREPARATION OF A DIAGNOSIS TO IDENTIFY OPPORTUNITIES FOR THE CIRCULAR BIOECONOMY IN GREEN PUBLIC PROCUREMENT

Commissioned by the Generalitat de Catalunya

It includes a diagnosis to identify and analyse good practices in public procurement of biomaterials and bioproducts within the framework of the circular bioeconomy carried out by the Generalitat and its public sector. It also includes a search for good practices at an international level and a selection of 8 experiences of special interest to facilitate their reproduction.



LIFE BIOBEST

Funded by the European Commission

The project aims to identify and validate the current best practices and management instruments along the bio-waste management chain that allow the production of quality compost and digestate and establish series of reference Key Performing Indicators, based on the analysis of existing databases and experiences. Through interconnected co-creation meetings with relevant expert stakeholders of the sector, solutions will be provided to overcome the identified technical, regulatory, economic and environmental barriers to widely adopt the proposed BPs. The project consortium is led by ENT Foundation and composed by Consorzio Italiano Compostatori, ACR+, European Compost Network and Zero Waste Europe. It is a 2.5-years LIFE Preparatory Project started in 2023.



H2020 SCORE: SMART CONTROL OF THE CLIMATE RESILIENCE IN EUROPEAN COASTAL CITIES

Funded by the European Commission

The objective is to study, design, develop, monitor and validate robust adaptation measures in coastal areas to protect them from increasing climate and sea level rise risks, including flooding and erosion, thereby improving their overall long-term resilience. Lasting 2 years and led by IT-Sligo, ENT leads WP7 - Socioeconomic Considerations and Adaptations and coordinates the Coastal City Living Lab of the Barcelona province.



CRITICAL CONFLICT MINERALS AND ELECTRIC VEHICLES IN PUBLIC PROCUREMENT

Funded by Medicus Mundi Mediterrània

Considering the commitment of Catalan municipalities to mobility and electric vehicles, it is necessary to identify the possibilities of actions by local authorities in compliance with environmental, social and labour rights in the supply chains of electric vehicles. This project identifies options and barriers at the municipal level by reviewing literature and through interviews. In addition, a face-to-face workshop will be held with municipal agents to discuss possible measures.



STUDY ON PROPOSALS FOR MUNICIPAL ADAPTATION TO SCENARIOS OF REDUCED AVAILABILITY OF RESOURCES IN GIRONA

Commissioned by the Research & Degrowth International

Based on the specific situation of the city of Girona, the aim of the study is to define, explore and propose concrete actions and measures to face and adapt to plausible scenarios of less availability of resources where scarcity intersects energy and basic resources for life, such as water or food, and the most obvious manifestations of climate change. The objective is to identify measures that can be adopted by the city council or citizen initiatives that the city council can support.



PAY-AS-YOU-THROW WASTE RATES: EXPERIENCES, BARRIERS AND CHALLENGES IN SPAIN

Commissioned by the Instituto de Estudios Fiscales

This project aims to gather the knowledge and state of the art of pay-as-you-throw and save-as-you-throw systems. Additionally, an updated inventory of Spanish local authorities will be presented with implementation and practical examples of their application. The costs and revenues that must be taken into account when designing waste rates for payment per generation and participation bonuses will also be analysed. Finally, the barriers and challenges for their deployment in the near future will be presented.



OPFOR-EU - OPTIMISING FOREST MANAGEMENT DECISIONS FOR A LOW-CARBON, CLIMATE RESILIENT FUTURE IN EUROPE

Commissioned by the European Commission

This 4-year Horizon Europe project started in 2023 will build a Decision Support System (DSS) to provide forest managers and other relevant stakeholders with tailored options for optimising decarbonisation and other Forest Ecosystem Services (FES) across Europe. ENT is a partner of this consortium lead by Administratia Nationala de Meteorologie (Romania).



TECHNICAL SUPPORT FOR LIFE CYCLE COST ANALYSIS OF STEEL PRODUCTS AND ECODSIGN IMPACT ASSESSMENT

Commissioned by the Joint Research Center

This project aims to conduct a comprehensive Life Cycle Cost (LCC) analysis for five representative steel products sold on the European market, adopting a cradle-to-gate approach that traces the LCC from raw material sourcing (cradle) to the point of final product readiness at the manufacturing plant's exit (gate). This analysis will include the comparative assessment between base case and eco-design scenarios, with several potential ecodesign requirements for each of the products under scope.

In addition to these projects, we promote our own research projects such as:



ECOLOGÍA POLÍTICA JOURNAL

Ecología Política – Cuadernos de Debate Internacional is a bi-annual journal that reflects debates around the influence of political power on socioecological conflicts. Within the discipline of political ecology, it focuses on aspects such as environmental conflicts, inequalities in access to resources and exposure to pollution, environmental policies, resistance networks and social movements and referents of environmental thought.

ENT assumed the secretariat of the journal in 2006. Since 2013, Ecología Política has been jointly published by ENT Foundation and Icaria editorial, and it counts with an Editorial Board and an Advisory Board. In 2022, the CLACSO Political Ecology Group joined the co-edition of the journal.



OBSERVATORY ON WASTE TAXATION

The Observatory on Waste Taxation was created in 2018 to monitor the use of taxation instruments for waste policy in Spain. Our objective is to act as a reference in this aspect and to promote a greater use of waste taxes and charges as tools to improve waste management.

4 FELLOWSHIPS AND INTERNSHIPS

FELLOWSHIPS

In 2024, ENT Foundation had 4 fellows:

Dr. Santiago Gorostiza

Postdoctoral researcher at the Centre d'Histoire de Sciences Po (Paris). He is an environmental history specialist in the Spanish Civil War and the Franco regime. He made a research internship at ENT during his doctoral research in the framework of a European Marie Curie project on political ecology. He is a member of the editorial board of *Ecología Política* journal and has edited several issues of the journal. After completing his doctorate at the University of Coimbra (Portugal), he was a postdoctoral researcher at the Institute of Environmental Science and Technology (ICTA) at the UAB, where he did research on environmental history and historical climatology

Dra. Irmak Ertör

Assistant professor at the Ataturk Institute - Bogazici University. Economist and specialist researcher in political ecology and specifically in relation to fishing and aquaculture.

Dr. Gabriel Weber

Associate Professor of International Affairs and Sustainability at ESSCA, Bordeaux. He was a Marie Curie Post Doc Fellow at ENT in the field of Political Ecology. He holds a PhD in Environmental Management and Accounting from TU Dresden in Germany. His research focuses on mitigation and adaptation to climate change, environmental policy instruments, and waste management, within the fields of ecological economics and political ecology.

Dra. Marien González Hidalgo

Environmental Scientist and researcher specialized in political ecology studies with a feminist perspective and psycho-social perspective in environmental conflicts.

INTERNSHIPS

In 2024, no internship was carried out at ENT.

On the other hand, we were awarded a grant from the JOVES EN PRÁCTIQUES programme which will be implemented in 2025.

5 OTHER RESEARCH ACTIVITIES

CONTRIBUTIONS IN INTERNATIONAL CONFERENCES

- 🗓️ March 19 | Itziar Müller | Presentación del “Pla d’Acció de Compra Pública Verda de Catalunya 2022-2025”. BRINC workshop and international conference on innovation procurement. Brussels, Belgium.
- 🗓️ April 3 | Luís Campos | Participation as a “H2020 SCORE - Smart control of the climate resilience in European coastal cities” project representative. Ocean & Climate Platform Workshop. Online.
- 🗓️ April 9 | Ignasi Puig | “Pay-as-you-throw waste charges and landfill and incineration taxes”. Greening of taxes. Peer-learning conference. EY-Greece & IEEP. Athens, Greece.
- 🗓️ April 14 | Mar Riera | “The contribution of participatory decision making in the planning of ecosystem-based adaptation”, PICO presentation. EGU24. Vienna, Austria.
- 🗓️ May 21 | Mar Riera | “Tools to enhance climate change adaptation in coastal areas”. Adapt4Coast webinar. Online.
- 🗓️ July 10 | Verònica Martínez | “Working Paper on the contribution of circular economy to climate action”. Internacional Boosting a Just Transition in the Mediterranean: From Research to Action. Just2ce. Barcelona.
- 🗓️ November 6 | Karin Mesiterl | Presentation of the project “H2020 Biocircularcities” at the session “City Regeneration, Circularity, and Health: National and European Policies to Improve Urban Quality of Life - PART 1 | Challenges and Strategies of Cities towards Circular Transition”. Ecomondo 2024. Rimini, Italy.

CONTRIBUTIONS IN OTHER EVENTS

- February - September | Maria Calaf | “Sistemas de pago por generación” within the framework of the HOBEKI Association courses. Online.
- February 22 | Míriam Galindo | Presentation of the project “Propostes per minimitzar els envasos de plàstic d’un sol ús (reducció o eliminació) en la cadena de valor del producte de la pesca (distribució i venda)” within the framework of the Barcelona Zero Plastic Commitment. Barcelona.
- March 19 | Gemma Nohales | “Análisis del estado actual de la planta de reciclaje y la gestión de otras plantas similares, junto a las mejoras de los modelos de recogida implantados” within the framework of the Nostián con Futuro conference. A Coruña.
- March 26 | Ignasi Puig | “Fiscalidad ambiental: Consideraciones generales y propuestas” within the framework of the presentation on Tax Reform of the General Assemblies of Guipuzkoa. Donostia.
- May 31 | Rosaria Chifari | Speaker at the 1st Workshop on circular management of public lighting, organized by Edison Next. Palma.
- May 31 | Ignasi Puig | Speaker at the round table entitled “¿Cómo pueden enfocar la nueva Tasa o PPNT los Ayuntamientos?” within the framework of the conference “Los ayuntamientos ante el desafío de la nueva tasa o prestación patrimonial de carácter público no tributario por la generación de residuos”. ANIHPL & esPublico. Madrid.
- July 3 | Maria Calaf | Session “Sistemas de Pago por Generación y/o Tasa Justa vinculados a los modelos individualizados de recogida de residuos” within the framework of the Aula Virtual Corporativa of esPublico. Online.
- July 24 | Maria Calaf | “Taller sobre l’establiment de taxes de residus” within the framework of the Conference-Workshop “L’Aplicació de la Taxa de Residus a Catalunya”, organized by the Catalan Association of Municipalities. Barcelona.
- September 20 | Verònica Martínez & Ignasi Puig | Presentation of the paper “La circularitat de les energies renovables a Catalunya” within the framework of the Industry Observatory. Barcelona.
- September 27 | Ignasi Puig | “La tributación de la gestión de residuos en el ámbito local” within the framework of the conference “Instrumentos fiscales locales para la sostenibilidad: retos en vivienda y gestión de residuos”. University of Girona. Girona.
- October 7 | Ignasi Puig | “Estat actual de les taxes de gestió de residus en els petits i mitjans municipis” within the framework of the session “La gestió dels residus municipals i la nova taxa per generació” organized by the Island Council of Mallorca within the framework of the III Training Cycle for municipal staff. Palma.
- October 8 | Gemma Nohales | Training on Extended Producer Responsibility within the framework of the 1st Business Breakfast organized by the Ripollet City Council and with the support of the Ripollet Business Association. Ripollet.
- October 8 | Ignasi Puig | “Marco fiscal de la gestión y tratamiento de residuos municipales” within the framework of the second edition of the course “Experto Técnico en Gestión de Residuos Municipales” organized by the Escuela Internacional de Servicios Públicos (eiSP). Madrid.
- December 3 | Ignasi Puig | Participation in Table 3 of the session “Fiscalidad y nuevos costes en materia de vertidos de residuos” within the framework of the National Environmental Congress (CONAMA) 2024.

PENSAMENTS

PensamENTS are online sessions organized by ENT to debate around issues related to the environment. ENT invites an expert to each session, who offers a presentation and then the session opens up to questions and debate. In 2024, **7** sessions were held:

February | **Rosa Garcia**

Fundació ReZero

La salut i el tèxtil sanitari com a nous vectors acceleradors cap al residu zero

March | **Patrizia Ziveri**

Institut de Ciència i Tecnologia Ambientals (ICTA-UAB)

Actions of cities and regions in the Mediterranean Sea area to fight sea pollution

May | **Pedro Herrera Molina**

Universidad Nacional de Educación a Distancia

Cuestiones jurídicas problemáticas sobre las tasas y tarifas de residuos

July | **Anna Bacardit**

Elcimaï Environment

La Responsabilidad Ampliada del Productor (RAP) en Francia: aplicada a los productos textiles y muebles

October | **David Font Vivanco**

Eco Intelligent Growth

El Rol de la Circularidad en las Declaraciones Ambientales de Producto

November | **Belén García Carretero**

Universidad Autónoma de Madrid

El impuesto especial sobre los envases de plástico no reutilizables

December | **Ignasi Puig, Maria Calaf & Raimon Ràfols**

ENT

Presentación del estudio "Las tasas de residuos en España 2024"

7 Participations in international conferences

14 Participations in other events

7 PensamENTS sessions

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