Martí Puig

University Lecturer

Dr. Martí Puig is a Chemical Engineer with more than twelve years of professional experience in the areas of research and teaching. His research has focused on environmental aspects of risk; particularly in the environmental management of seaports.

Dr. Martí Puig graduated as a Chemical Engineer from the School of Industrial Engineering of Barcelona (ETSEIB) of the Polytechnic University of Catalonia (UPC). In 2009, he moved to the University of Cardiff (Wales, United Kingdom) to carry out the Final Degree Project, framed within the European mobility program ERASMUS.

After graduation, on the years 2010 and 2011 he worked for Cardiff University as a researcher in the PPRISM (Port Performance Indicators: Selection and Measurement) project. This project aimed to determine indicators that would demonstrate the impact of the port sector on society, the environment and the economy. During his stage in Cardiff, Martí also collaborated with the Low Carbon Research Institute (LCRI) project by monitoring the seabed in St. David's (United Kingdom) to identify possible locations where to install turbines to harness the energy of the tide.

In June 2012, Dr. Puig was awarded an *MPhil* Master at the School of Earth and Ocean Sciences at the Cardiff University (United Kingdom), with the title '*Selection and implementation of Environmental Performance Indicators for sustainable port operations'.*

Then, in September 2012 he returned to Barcelona and began his doctoral thesis at the UPC. The thesis was entitled *Methodology for the selection and implementation of environmental aspects and performance indicators in ports* and aimed to develop a methodology that would help port authorities identify and evaluate the environmental aspects and indicators most appropriate for them. Dr. Puig graduated in November 2016 with the rating of Excellent *Cum Laude*.

During the completion of the thesis, Martí worked as an associate researcher in several EU-funded projects. The most prominent projects are PERSEUS (*Policy-oriented marine Environmental Research in the Southern EUropean Seas*) and PORTOPIA *(Port Observatory for Performance Indicator Analysis*). The first was to evaluate the impacts of human activity in the Mediterranean and Black seas; the second one was to define and integrate port sector indicators in a digital platform (*Service Cloud*). As part of the completion of the thesis and the development of projects, Dr Puig visited several European port terminals and analyzed their environmental management and monitoring programs.

Martí is the author of 9 scientific articles, 2 book chapters, and 3 articles in sector magazines, as well as more than 15 communications in conferences and congresses.

During the development of the thesis, Martí also collaborated as an assistant lecturer in the subject '*Control, Verification and Audit'* taught in the Master of Chemical Engineering of the Polytechnic University of Catalonia (UPC).

Between 2017 and 2023, Martí worked as an environmental consultant in Alenta medio ambiente focusing his activity on the analysis of industrial and environmental risk. Related to this last aspect, he carried out a large number of Environmental Risk Analysis (ARMAs) for industrial facilities in the chemical, petrochemical, pharmaceutical, gas and waste management sectors, among others.

From September 2018 to July 2023, Martí also worked in the UPC as Associate Lecturer, teaching the subject *Environmental Technology and Sustainability* in the Industrial Engineering degree.

In September 2023, Dr. Puig gained a position as a Lecturer, developing teaching and research in the Chemical Engineering Department of the UPC.

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Education

- Chemical engineer, Polytechnic University of Catalonia, UPC, 2010.
- *MPhil* Master, Cardiff University, 2012.
- Doctor in Chemical Process Engineering, Polytechnic University of Catalonia, UPC, 2016.

Areas of interest

- Environmental management
- Environmental impact studies
- Environmental risk analysis
- Port environmental management
- Environmental Quality (air and water)
- Legislative analysis
- Sustainability

Languages

- Catalan, Spanish, & English (C1)

Key industrial sectors

- Port areas
- Transportation and logistics
- Gas and oil
- Chemical industry
- Renewable energy

Publications

<u>Scientific articles</u>

- Puig, M.; Azarkamand, S.; Wooldridge, C.; Selén, V.; Darbra, R.M. (2022) Insights on the environmental management system of the European port sector. Science of the total environment. 806: 150550:1 ~ 150550:12

- Puig, M, Raptis, S., Wooldridge, C. & Darbra, R.M. (2020) Performance trends of environmental management in European ports. Marine Pollution Bulletin, 160, 111686.

- Puig, M.; Michail, A.; Wooldridge, C.; Darbra, R.M. (2017). *Benchmark dynamics in the environmental performance of ports.* Marine Pollution Bulletin, 121: 111-119.

- Puig, M.; Pla, A.; Seguí, X.; Darbra, R.M. (2017). *Tool for the identification and implementation of Environmental Indicators in Ports (TEIP).* Ocean and coastal management, 140: 34-45.

- Seguí, X., Puig, M., Quintieri, E., Wooldridge, C. & Darbra, R.M. (2016). *New environmental performance baseline for inland ports: A benchmark for the European inland port sector.* Environmental Science & Policy. 58: 29–40.

- Antão, P., Calderón, M., Puig, M., Michail, A., Wooldridge, C. & Darbra, R.M. (2016). *Identification of Occupational Health, Safety, Security (OHSS) and Environmental Performance Indicators in port areas.* Safety Science. 85: 266–275.

- Puig, M., Wooldridge, C., Casal, J. & Darbra, R.M. (2015). *Tool for the identification and assessment of Environmental Aspects in Ports (TEAP).* Ocean & Coastal Management. 113: 8-17.

- Puig, M., Wooldridge, C., Michail, A. & Darbra, R.M. (2015). *Current status and trends of the environmental performance in European ports.* Environmental Science and Policy. 48: 57-66.

- Puig, M., Wooldridge, C. & Darbra, R.M. (2014). *Identification and selection of Environmental Performance Indicators for sustainable port development.* Marine Pollution Bulletin. 81: 124–130.

<u>Articles in sector magazines</u>

- Puig, M.; Wooldridge, C.; Quinteri, E.; Darbra, R.M.; Seguí, X. (2016). *Top 10 environmental issues for EU inland ports.* Science for Environment Policy, no. 456, pp. 1-2.

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- Segui, X.; Puig, M.; Darbra, R.M.; Wooldridge, C. (2015). *Looking towards the hinterland for sustainable development.* GreenPort, vol. Winter 2015, pp. 14-17.

- Wooldridge, C & Puig, M. (2011). *Echoes through time. EcoPorts: past, present and future.* GreenPort, vol. Spring 2011, pp. 22-23.

Book chapters

- Puig, M.; Darbra, R.M. (2018). *The role of ports in a global economy, issues of relevance and environmental initiatives* in: World Seas an environmental evaluation.

- Tselentis, V.; Michail, A.; Darbra, R.M.; Puig, M.; Wooldridge, C. (2015). *Evidence-Based Monitoring for Sustainable Development of Port and Chain Operations* in: Sustainable Development of Sea-Corridors and Coastal Waters.

Conference presentations (selection)

- Puig, M.; Wooldridge, C.F.; Selén, V.; Almajano, M.P.; Darbra, R.M. (2023) European Ports insights in environmental issues. Proceedings of the Tenth International Conference on Environmental Management, Engineering, Planning and Economics (CEMEPE 2023) and SECOTOX Conference. Skiathos Island, Greece.
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- Darbra, R.M.; Wooldridge, C.; Puig, M.; Selén, V. (2020). Port environmental management insights. 17th Environmental Conference on Environmental Science and Technology 2021: conference programme. University of the Aegean.

- Puig, M.; Raptis, S.; Wooldridge, C.; Darbra, R.M. (2019). Results of the ESPO environmental report- EcoPortsinSights 2019. Oslo, GreenPort Cruise and Congress Handbook.

- Puig, M.; Raptis, S.; Wooldridge, C.; Darbra, R.M. (2019). European port trends in environmental issues. 16th International Conference on Environmental Science and Technology CEST2019, Rhodes, Greece.

- Puig, M.; Wooldridge, C.; Darbra, R.M. (2018). Environmental performance in the EU port sector. Proceedings of the GreenPort Conference 2018.

- Darbra, R.M.; Puig, M. (2017). *Development of tools for the identification and implementation of environmental aspects and indicators in ports.* European Transport Conference (ETC). Barcelona.

- Puig, M.; Darbra, R.M. (2015). *Development of a tool for the identification and assessment of environmental aspects in ports (TEAP).* PERSEUS Final Conference Proceedings. Bruselas.

- Puig, M.; Darbra, R.M. (2015). *Tool for the identification and assessment of Environmental Aspects in Ports (TEAP).* COMMON Stakeholders Meeting of PERSEUS & MAREFRAME Projects. Constanza.

- Puig, M.; Darbra, R.M. (2015). *Development of a Tool for the identification and assessment of Environmental Aspects in Ports (TEAP).* International Black Sea Day Celebrations. Istanbul.

- Segui, X.; Puig, M.; Darbra, R.M.; Wooldridge, C. (2015). *Inland ports looking seaward and towards the hinterland for sustainable development. Look both ways when using the corridor.* GreenPort Congress 2015. Copenhagen.

- Segui, X.; Darbra, R.M.; Puig, M. (2015). *Sustainable development and environmental management.* European Federation of Inland Ports (EFIP) Executive Committee. Trier (Alemania).

- Puig, M.; Darbra, R.M. (2015). Development of a methodology for the identification of significant environmental aspects in

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Mediterranean and Black sea ports. European Maritime Day 2015. Atenas.

- Puig, M.; Casal, J.; Darbra, R.M. (2014). *Development of a methodology for the identification of significant environmental aspects in mediterranean and black sea ports.* PERSEUS 2nd Scientific Workshop. Book of Abstracts. Marrakesh.

- Puig, M.; Casal, J.; Darbra, R.M. (2014). *Methodology for the identification of significant environmental aspects in Mediterranean and Black seas.* 2nd International Ocean Research Conference. Program and Abstracts. Barcelona.

- Puig, M.; Casal, J.; Darbra, R.M. (2014). *Environmental management performance in the Mediterranean and black sea ports.* International Congress on Green Infrastructure and Sustainable Societies/Cities 2014. Izmir (Turquía).

- Puig, M.; Casal, J.; Darbra, R.M. (2014). *Socio-economic impact of the maritime transport and ports in the Mediterranean and Black Seas.* PERSEUS Scientific Workshop. Atenas.

- Puig, M.; Casal, J.; Darbra, R.M. (2014). *Environmental pressures caused by ports in the Mediterranean and Black Sea.* PERSEUS Scientific Workshop. Atenas.

- Darbra, R.M.; Calderón, M.; Puig, M.; Wooldridge, C.; Michail, A.; Antao, P. (2014). *Indicators for health, safety and environmental performance in European ports: the role of women in this sector.* Maritime Women: Global Leadership 2nd International Conference. Malmö.

- Puig, M.; Darbra, R.M. (2014). The environmental dimension within the PORTOPIA project. Green Port 2014. Barcelona.

- Puig, M.; Wooldridge, C.; Casal, J.; Darbra, R.M. (2013). *Environmental reporting and communication - Show me the evidence!* GreenPort Congress 2013. Antwerp.

Main research projects

- *Port Observatory for Performance Indicator Analysis* (PORTOPIA). 2013-2017. Referencia: EC 605176.
- *Policy-oriented marine Environmental Research in the Southern EUropean Seas* (PERSEUS). 2012-2015. Referencia: EC 287600.
- *Management of maritime pollutants in shipping and commercial European ports based on relevant physical and biogeochemical environmental parameters* (IUPAC). 2011-2013. Referencia: 2010-028-3-600.
- *Selection and Implementation of environmental indicators for ports sustainable development* (SIMDESPORTS). 2011-2013. Referencia: JC069426.
- *Clean Baltic Sea Shipping CLEANSHIP*. 2010-2013.
- *Port Performance Indicators: Selection and Measurement (PPRISM). 2010 – 2011. Referencia: EC 552637.*

Environmental Risk Analysis

- Actualización del Análisis de Riesgos Medioambientales de la planta de Química del Cinca en Monzón (Huesca) (2023).

- Análisis de Riesgos Medioambientales (ARMA) del Proyecto Abandono Definitivo (P&A) de Pozos Submarinos (Activo Casablanca, Tarragona). REPSOL (2023).

- Análisis de Riesgos MedioAmbientales (ARMA) Proyecto Abandono Definitivo (P&A) del Pozo Vizcaya B-4 (Activo Albatros, Vizcaya). REPSOL (2023).

- Análisis de Riesgos Medioambientales (ARMA) Proyecto Abandono Definitivo (P&A) de Pozos Submarinos (Activo Poseidón, Huelva). REPSOL (2023).

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- Actualización del Análisis de Riesgos Medioambientales del Vertedero de residuos no peligrosos de Xixona (Alicante) (2023).
- Actualización del Análisis de Riesgos Medioambientales de la Planta de Metanización y Compostaje de Can Canut (Mallorca) (2023).
- Análisis de Riesgos Medioambientales del Centro Autorizado de Tratamiento de Vehículos Fuera de Uso, Centro de Transferencia de Residuos y Punto Limpio de Residuos de Melilla (REMESA) en Melilla (2022).
- Análisis de Riesgos Medioambientales de la Planta de Agralia Fertilizantes en Altorricón (Huesca) (2022).
- Análisis de Riesgos Medioambientales de la Planta de Planta de Tratamiento de Residuos de Las Lomas (Madrid) (2022).
- Actualización del Análisis de Riesgos Medioambientales del vertedero de residuos no peligrosos de Larrabetzu (Vizcaya) (2022).
- Análisis de Riesgos Medioambientales de la explotación porcina de la Sociedad Atlántica de Productos Ganaderos S.L. en Puerto del Rosario (Fuerteventura) (2022).
- Actualización del Análisis de Riesgos Medioambientales de la Planta de Transferencia de Residuos de Sertego en Salinetas (Gran Canaria) (2022).
- Actualización del Análisis de Riesgos Medioambientales de la Planta de Tratamiento de Residuos Sólidos Urbanos de Elche (2022).
- Actualización de dos Análisis de Riesgos Medioambientales de las plantas de Carburos Metálicos en Sant Celoni y Sant Esteve de Sesrovires (2022).
- Actualización de los Análisis de Riesgos Medioambientales en diez (10) instalaciones de ERCROS (2022).
- Análisis de Riesgos Medioambientales de la Planta de ERCROS en Monzón (2022).
- Análisis de Riesgos Medioambientales de la Planta de Aplicaciones y Suministros Textiles S.A. (ASUTEX) en Palau-Solità i Plegamans (Barcelona) (2021).
- Análisis de Riesgos Medioambientales de la Planta de producción de CO2 de Carburos Metálicos en Garray (Soria) (2021).
- Análisis de Riesgos Medioambientales de la Planta de Tratamiento de Residuos de la Construcción y Demolición y Depósito Controlado de Residuos no peligrosos de La Mojorera (Almería) (2021).
- Análisis de Riesgos Medioambientales de la Planta de Containers del Berguedà en Berga (Barcelona) (2021).
- Análisis de Riesgos Medioambientales de las instalaciones de procesado de Novafrigsa (Grupo Coren) en Lamablanca (Lugo) (2021).
- Análisis de Riesgos Medioambientales de la Planta de fabricación de productos cárnicos de OSI Food Solutions en Toledo (2021).
- Análisis de Riesgos Medioambientales de los Centros de Transferencia de Gemecan Residuos en Telde (Gran Canaria) y en Santa Cruz de Tenerife (Tenerife) (2021).
- Análisis de Riesgos Medioambientales de la Planta de PINCASA en Almussafes (Valencia) (2021).
- Análisis de Riesgos Medioambientales de la Planta de Deóleo en Alcolea (Córdoba) (2021).
- Análisis de Riesgos Medioambientales para seis (6) plantas del Grupo Miquel y Costas (2021).

- Análisis de Riesgos Medioambientales de la Planta de tratamiento de residuos farmacéuticos de FERROVIAL en Tudela de Duero (Valladolid) (2021).
- Análisis de Riesgos Medioambientales del matadero de Gremial de Catalunya en Castellbisbal (Barcelona) (2021).
- Análisis de Riesgos Medioambientales de la planta de Avient Colorants en Sant Andreu de la Barca (Barcelona) (2021).
- Análisis de Riesgos Medioambientales de la Planta Intercomarcal del Reciclatge (PIRSA) en Sabadell (Barcelona) (2021).
- Análisis de Riesgos Medioambientales de la Planta Integral de Tratamiento de Residuos de Melilla (2021).
- Análisis de Riesgos Medioambientales para ocho (8) plantas de CALCINOR (2021).
- Análisis de Riesgos Medioambientales para siete (7) instalaciones de gestión de residuos de FERROVIAL (2021).
- Actualización de los Análisis de Riesgos Medioambientales en cuatro (4) instalaciones Seveso de CEPSA (2021).
- Análisis de Riesgos Medioambientales de tres (3) plantas de ADAM FOODS (2021).
- Análisis de Riesgos Medioambientales de la planta de Sociedad Española de Desarrollos Químicos (SEDQ) Healthy Crops en Monzón (Huesca) (2021).
- Análisis de Riesgos Medioambientales para treinta y tres (33) instalaciones de gestión de residuos de URBASER (2021).
- Análisis de Riesgos Medioambientales de la planta de gestión de residuos Europea de Gestión de Residuos en Agüimes (Gran Canaria) (2020).
- Análisis de Riesgos Medioambientales de la planta de gestión de residuos GRPS Miranda en Talavera de la Reina (Toledo) (2020).
- Análisis de Riesgos Medioambientales para ocho (8) instalaciones de FERTIBERIA en España y Portugal (2020).
- Análisis de Riesgos Medioambientales para diecinueve (19) instalaciones de gestión de residuos de SERTEGO (2020).
- Análisis de Riesgos Medioambientales para siete (7) instalaciones de gestión de residuos de FERROVIAL (2020).
- Análisis de Riesgos Medioambientales para la Planta HYCO de Carburos Metálicos en La Pobla de Mafumet (2020).
- Análisis de Riesgos Medioambientales del vertedero de SOMACYL en San Román de la Vega (2020).
- Análisis de Riesgos Medioambientales para la planta farmacéutica de DUKE Chem en Olèrdola (2019).
- Análisis de Riesgos Medioambientales para la planta farmacéutica de INFAR en Palafolls (2019).
- Análisis de Riesgos Medioambientales para la planta de química fina de INTERQUIM en Beniel (Murcia) (2019).
- Análisis de Riesgos Medioambientales para la planta farmacéutica de LEBSA en Cornellà (2019).
- Análisis de Riesgos Medioambientales para la planta de química fina de INTERQUIM en Sant Cugat del Vallès (2019).
- Análisis de Riesgos Medioambientales para el Centro de Tratamiento de Residuos Sólidos Urbanos en la ciudad de Alicante (2019).
- Análisis de Riesgos Medioambientales para diez (10) vertederos de RSU y CTR de FERROVIAL (2019).

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Contact details

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- Análisis de Riesgos Medioambientales para treinta (30) vertederos de RSU de URBASER (2019).
- Análisis de Riesgos Medioambientales para seis (6) vertederos industriales de SERTEGO (2019).
- Análisis de Riesgos Medioambientales para una planta de gestión de residuos y recuperación de envases industriales, GIESA (2019).
- Análisis de riesgos medioambientales para dos (2) vertederos industriales en el País Vasco, FERROVIAL (2019).
- Análisis de Riesgos Medioambientales para las instalaciones de Cerdanyola y Tarragona de ERCROS (2018).
- ARMA para la planta de Boehringer Ingelheim España S.A. (BIESA) en Malgrat de Mar (2018).
- ARMA para las siete (7) instalaciones de almacenamiento de DISA en las Islas Canarias (Granadilla, La Palma, El Hierro, La Gomera, Lanzarote, Fuerteventura, y Salinetas) (2018).
- ARMA para la planta de fabricación de acetileno de AIR LIQUIDE en Zaragoza (2018).
- ARMA para las 18 plantas de envasado de gases y para las plantas de separación de gases del aire (ASUs) de CARBUROS METÁLICOS en España (2018).
- ARMA para la planta química y farmacéutica de MERCK en Mollet del Vallès (2018).
- ARMA para la Factoría de ATLAS (Grupo CEPSA) en Ceuta (2018).
- ARMA para la planta de separación de gases del aire (ASU) de Oxígeno de Andalucía en Cádiz (2018).