

Matthias Leroy

MSc Marine Sciences | Lead Survey Specialist | Marine Environmental Assessment

Professional Profile

Marine scientist and offshore survey specialist with an MSc in Marine and Lacustrine Sciences (University of Ghent) and over twelve years of professional experience in offshore survey operations, wreck removal, environmental monitoring, and geophysical survey. Academic formation included dedicated coursework in Integrated Coastal Zone Management, Marine Legislation, Biological Oceanography, Geology, Geophysics and Oceanography, and GIS — providing a rigorous theoretical and legislative foundation for environmental screening and assessment within EU regulatory frameworks including the Habitats Directive (92/43/EEC) and the Marine Strategy Framework Directive (2008/56/EC). Professional experience spans offshore wind farm projects — where Appropriate Assessment screening under the Habitats Directive is a standard prerequisite — wreck removal and casualty operations across multiple continents, and environmental monitoring assignments. This combination of academic grounding in marine environmental legislation and practical offshore operational experience provides the qualifications necessary to assess potential impacts on Natura 2000 sites and Annex IV species in the context of maritime operations.

Academic Qualifications

MSc in Marine and Lacustrine Sciences — University of Ghent, Belgium (2008–2010)

Master's thesis: Niche models in marine invasion biology.

Principal subjects: Integrated Coastal Zone Management; Geology, Geophysics and Oceanography; Tools in Aquatic Science; Data Management; Marine Legislation; Biological Oceanography; GIS.

BSc in Biology — University of Ghent, Belgium (2005–2008)

Principal subjects: Biology of Vertebrates; Biology of Invertebrates; Physics; Chemistry.

Professional Certifications

- BOSIET (Basic Offshore Safety Induction and Emergency Training) — HSE certified, March 2011 (renewed March 2019)

Core Technical Competencies

- Marine environmental screening and impact assessment — Habitats Directive, Marine Strategy Framework Directive
- Integrated Coastal Zone Management and EU marine legislative frameworks
- Multibeam echo sounder (MBES): Reson T50, T7125, R2Sonic 2024, Kongsberg MBES2040, Norbit, Applanix POS MV

- USBL acoustic positioning: Ixsea GAPS, Hydrins, Applied Acoustics Nexus, Kongsberg HiPAP 501
- Side-scan sonar, sub-bottom profiling, magnetometer/gradiometer survey
- ROV support: BlueROV, Videoray — inspection, positioning, diver tracking
- Survey software: QINSy, EIVA NaviPac/NaviScan, PDS2000, Sonarwiz, Autoclean, Autocad
- Metocean monitoring: ADCP (Teledyne, Nortek), CTD, current meters, wave buoys (Triaxys), sound velocity profilers
- Drone survey and 3D photogrammetric mapping (DJI, Agisoft Photoscan)
- Survey project management, party chief operations, client liaison

Selected Professional Experience

Freelance Lead Surveyor — Wreck Removal & Environmental Projects

- Lead Surveyor, Wreck Removal Dubai (Feb–Mar 2025, Koole): Mobilisation of full survey spread — USBL, MBES, barge and crane positioning; data acquisition and processing.
- Lead Surveyor, Verity Wreck Removal, Helgoland Germany (May–Sep 2024, Koole): Full survey scope mobilisation and MBES acquisition and processing.
- Lead Surveyor, VARAPRADA Wreck Removal, Mumbai India (Jan–Apr 2024, Koole): USBL, MBES, barge and crane positioning.
- Lead Surveyor, MV Parth Oil Removal, India (Jan–Apr 2024, Koole): ROV inspection (BlueROV), MBES, diver positioning assistance.
- Lead Surveyor, Wintershall 2023 Decommissioning, Mumbai (Oct–Nov 2023, Koole): Full USBL and MBES scope; ROV inspection (Videoray); client liaison.
- Lead Surveyor, PAPAA305 Wreck Removal, Mumbai (Oct 2022–Apr 2023, Koole): Full survey scope mobilisation, MBES acquisition and processing, client liaison.
- Lead Surveyor, Golden Ray Wreck Removal, Georgia USA (Jan–Mar 2021, T&T Salvage): Positioning, maintenance and monitoring of wreck motion system.
- Lead Surveyor, Costa Concordia Wreck Removal, Italy (Dec 2013–Dec 2015, DISA International): MBES acquisition and processing; motion monitoring system; wireless network; subsea positioning; client liaison.
- Hydrographic Surveyor, Little Seyma Wreck Removal, Mykonos Greece (Feb 2018, DISA International): Full MBES mobilisation, acquisition and processing; drone survey.
- Lead Surveyor, Seaworker Wreck Removal, Denmark (Mar–Sep 2017, DISA International): Full survey scope including MBES, SSS, gradiometer, RTK; anchor handling; daily client liaison.
- Lead Surveyor, Troll Solution Wreck Removal, Mexico (Apr–Nov 2016, Ardent): Full survey scope mobilisation; MBES acquisition; motion monitoring on Caan-A platform; subsea positioning; satellite and CCTV installation; daily client reporting.

Lead Surveyor / Party Chief — Offshore Wind & Energy Infrastructure

Multiple offshore wind and energy infrastructure campaigns where Appropriate Assessment screening under the EU Habitats Directive is a mandatory pre-construction environmental requirement:

- Party Chief, Eolien Gruissan, France (May–Sep 2023, GEOxyz): MBES, gradiometer, SSS survey.
- Senior Surveyor, UXO Removal, Copenhagen (Apr–Sep 2021, NSEA): USBL, MBES acquisition and processing.
- Wintershall Decommissioning, Netherlands (Apr–Sep 2021, Koole): Positioning and MBES.
- Online Surveyor, Nord Stream 2, Germany (Aug–Nov 2020, GEOxyz): MBES, sub-bottom, SSS, magnetometer.
- Online/Offline Surveyor, Borssele Windfarm, Netherlands (Mar 2018–Jul 2020, Van Oord): MBES data acquisition, processing, charting; sub-bottom; magnetometer.
- Online/Offline Surveyor, Norther Windfarm, Belgium (Mar 2018–Jul 2020, Van Oord): MBES data acquisition, processing, charting.
- Various projects onboard Geofocus (Dec 2021–Aug 2022, NSEA): Positioning, MBES, gradiometer, sub-bottom, SSS for windfarm projects.
- Bornholm I & II Geophysical Survey (Dec 2021–Aug 2022, GEOxyz): Party Chief; full geophysical spread.
- UXO Detection, Borwind 3 (Dec 2015–Apr 2016, G-TEC): Party Chief; magnetometer acquisition.

Metocean Field Engineer — Gems Met, Bruges (Mar 2011–Dec 2013)

London Gateway Project (Gravesend, UK): Setup and operation of a real-time environmental monitoring network (22 stations) for dredging of the Thames navigational channel. Instruments: ADCP, AWAC, YSI Sonde 6-series, Vector, Aquadopp, ASM. Field Supervisor responsibilities including environmental operations planning and management, client liaison, daily reporting, and staff training.

Languages

- Dutch — Native
 - English — Fluent
 - French — Basic
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