

Meet the company: International Marine & Dredging Consultants (IMDC)

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For over 30 years IMDC provides specialized, water-related engineering and consultancy services for governmental departments, contractors, the European Community, the World Bank, port authorities and industrial agencies. From the very start IMDC has been systematically expanding its knowledge through research and development activities which are implemented in close collaboration with a broad range of European universities and research entities. IMDC has been active in over 50 countries worldwide, thus establishing a strong international reputation.

Our staff

The background of the IMDC staff ranges from research scientists and experienced engineers to qualified technicians. Besides hydraulic and civil engineers, IMDC staff also includes oceanographers, bio-engineers, chemists, ecologists, geologists and geographers.

Our projects

The IMDC products consist of studies (feasibility, master plans, pre-designs), designs, tender documents, environmental impact assessments, plans for infrastructure projects, surveys, procurement assistance and supervision during construction for offshore wind farm projects, ports and coastal infrastructure in Belgium and abroad.

The fields of expertise of IMDC are:

- Marine & estuarine systems: Our capacity to analyse complex hydrodynamic and morphological systems is based on thorough knowledge of the physical processes combined with detailed in-situ survey campaigns. This enables us to provide solutions for harbour siltation and salt intrusion problems, thermal spreading and turbidity plumes.
- Dredging: IMDC can cover just about any stage of a dredging project, ranging from an initial site visit to detailed designing efforts, drawing up contract documents and budget estimates, to supervision and expert missions.
- Coastal engineering: Due to the global sea level rise, coastal protection is becoming a hot issue. IMDC provides an extensive range of services based on the combination of profound theoretical know-how in hydraulics, morphology and risk analysis as well as broad experience in technical solutions. Our preference goes to natural and sustainable options wherever feasible.
- Port & offshore engineering: IMDC focuses on the hydraulic design in Master Planning, port layouts, erosion protection structures and breakwaters. In the offshore field we provide wave analysis and morphological studies, scour protection design, optimisation of cable and pipeline routes.
- Blue energy: Thanks to its extensive hydraulic know-how, IMDC is able to contribute to not only finding the best options for offshore wind farms but also to participating in studies which identify possibilities for wave and tidal energy solutions.
- River basin management: The management of river basins requires an integrated and sustainable approach based on an exhaustive knowledge of hydrology and hydrodynamics. IMDC can provide a wide range of services such as detailed river modelling, real time flood forecasting and flood mapping, inundation risk analysis and flood risk management plans.
- Waterways & inland navigation: Based on thorough knowledge of both natural and man-made waterways we can provide solutions for waterborne transport needs including the definition of required river training works, the reduction of maintenance needs and the conservation of ecological values in vulnerable stretches.
- Hydraulic design: An erroneous design of water intakes or outlets often leads to suboptimal solutions with excessive abrasion and/or recirculation problems. IMDC can provide an in-depth analysis of hydraulic systems (water intakes, outlets, pipeline systems and sea outfalls). The proper definition of requirements will lead to an economical design with low maintenance costs during the exploitation of the system.
- Environmental studies: Our primary environmental concern goes to water-related problems, with special attention given to reducing the ecological impact of hydraulic works and dredging projects. We encourage the beneficial reuse of dredged material and a permanent monitoring effort to understand and minimise the on-site impact of marine activities.

- Measurements : IMDC organises project specific measurement campaigns to acquire the necessary data for any complex hydrodynamic or sediment related problem. We work with the most up-to-date equipment, a great deal of which is developed in-house.

ENGIE-Tractebel Engineering

IMDC is also able to offer the facilities of its parent company, the Tractebel Engineering group, an ENGIE Company, for any large project as well as for the consultation of any expertise within their wide range of engineering tasks.