

International Marine and Dredging Consultants (IMDC) is an engineering and consultancy company specialized in a vast range of water related projects. Our highly qualified staff offers advice based on recent research results of leading universities and research institutes and hands-on experience acquired throughout the years. One of IMDC's activities is coastal zone management (CZM).

More information can be found on our website www.imdc.be

# **Coastal Zone Management**

## Balancing People, Nature & Economy



Coastal zones are among the most dynamic and valuable regions of the world, supporting dense populations, vital infrastructure, ports, industries, and unique ecosystems. At the same time, they are under increasing pressure from

multiple drivers: climate change, urbanisation, resource exploitation, and competing land uses. IMDC therefore offers a full range of specialist consultancy services to public and private sector clients for coastal management.

## Challenges

- Climate change
- Urbanization
- Coastal erosion
- Sea level rise
- Resource exploitation
- Pressure on ecosystems
- Competing land uses





## Consequences

- Coastal floodings
- Habitat loss for species
- Infrastructure damage
- Hindering economic development
- Economical losses

### IMDC's approach

- Integrated & Multidisciplinary combining hydrodynamics, morpholgy, ecology, and socioeconomics
- Nature-based solution first prioritizing soft and nature-inclusive meaures
- Tailored solutions strategies shaped to local conditions, regulatory contexts, and community and environmental needs
- From strategy to action planning, policy support, design, construction supervision, monitoring



### **Key Services**





#### **Strategic & Master Planning**

Our services include shoreline management to mitigate erosion and flooding risks, and coastal zone management that integrates environmental, social, and economic factors. We also provide policy advice to support sustainable decision-making and long-term coastal development.



#### **Engineering & Measures**

Our measures combine soft interventions, hybrid approaches, and engineered hard structures where necessary. We prioritize sustainable soft measures where possible.



#### **Risk & Resilience Analysis**

Our risk and resilience services help communities prepare for coastal hazards through detailed mapping, vulnerability and risk assessments, and advanced early warning systems. By identifying threats and weak points, we enable proactive strategies that reduce impacts and enhance safety.







#### **Decision Support Tools**

We deliver decision support tools using advanced hydrodynamic, morphodynamic, and ecological modeling, combined with GIS and scenario analysis, to guide smart coastal management decisions.

#### Monitoring & Evaluation

We provide comprehensive monitoring for coastal projects, integrating data collection, remote sensing, and field surveys with continuous performance tracking. By combining technology and on-the-ground insights, we deliver reliable feedback for informed decision-making and long-term coastal resilience.

## **Proven Expertise**

#### Kustvisie

IMDC shapes the Flemish Coastal Vision 2100, preparing society for sea level. Through innovation and cocreation, we combine technical excellence with participatory work to safeguard the coast for next generations.

#### **WACA**

IMDC supports a World Bank program in building coastal resilience across West Africa by identifying hotspots and shaping smart adaptation strategies.

#### Elmina

IMDC transformed the Elmina (Ghana) fishing port and Waterfront with sustainable design, innovative engineering, and full construction supervision to boost economic resilience and support the local fishing community.





## Why IMDC



40+ years' experience



Close collaboration with universities



Shaping plans into action



Research & Innovation



20+ Coastal Engineering experts



Broad international network



ISO- certified quality control



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