

Sustainable and resilient design and management of waterborne transport infrastructure

Joris Santermans

IMDC - International Marine and
Dredging Consultants



Joris Santermans



2005: Civil Engineer-Architect

2005-2007: Architecture firm Rimanque, Tienen

> internship architecture

2007-2010: Jan De Nul, Aalst

> Operational Superintendent Tunisia, Italy, Singapore, Malaysia, Oman, Germany, Panama

2010-2011: Grontmij, Mechelen

> on-shore wind farms

2011-heden: IMDC, Berchem

> Engineer-Advisor (project leader) for different dredging studies

Expertise in dredging

- Dredging equipment
- Feasibility, detailed design and optimisation studies
- Drawing up of tender documents
- Supervision and control
- Disposal and treatment of dredged material
- Environmental assessment and monitoring

Dredging equipment



- Selection of most appropriate dredging equipment
- Specifications for new equipment or renovations
- Advice on dredge fleet composition
- Evaluation of performance of equipment

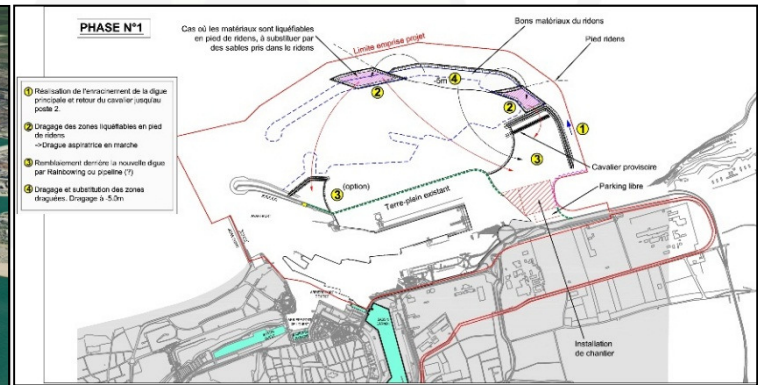


India, Operational analysis of CSD Portofino

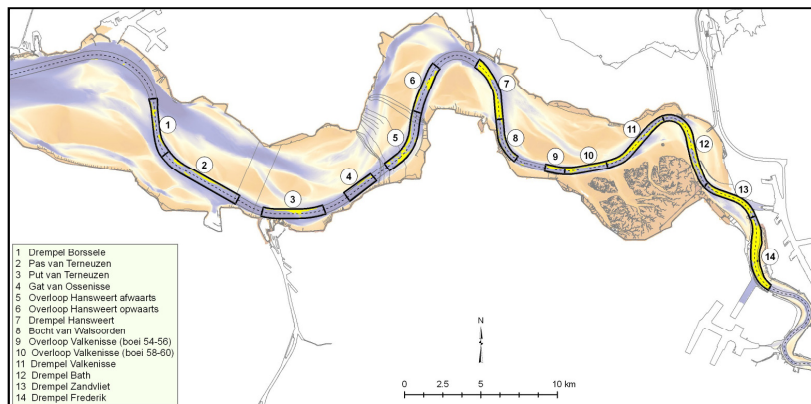


Feasibility, detailed design and optimisations studies

- Dredging studies for capital and maintenance dredging works and land reclamation projects : feasibility study, (detailed) design, volume calculations, phasing, planning, cost estimation



France, Calais 2015 port expansion

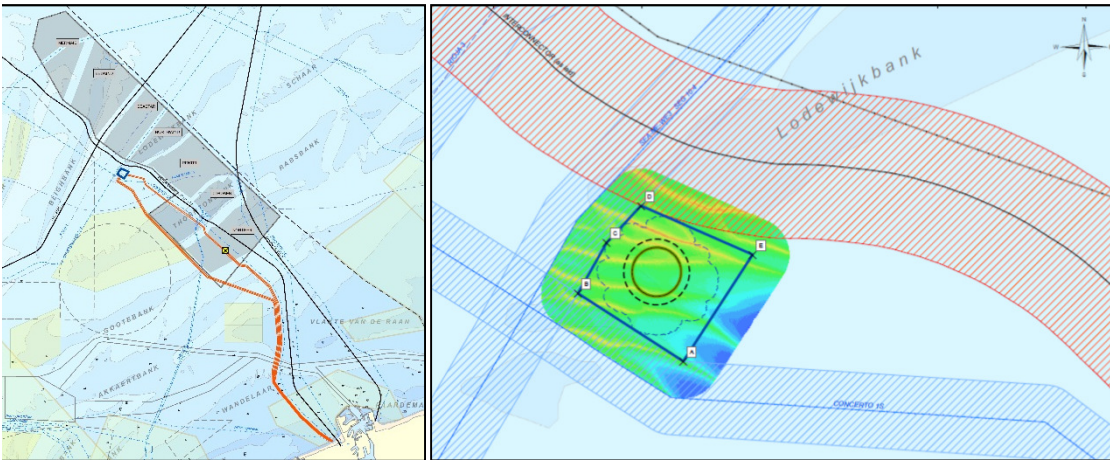


The Netherlands - Belgium, Third enlargement program of the river Scheldt

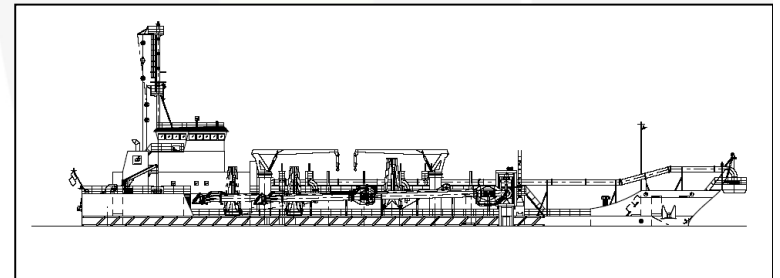
Tender documents

For DREDGING PROJECTS as well as (RE)NEW(AL) of DREDGING EQUIPMENT

- Administrative Clauses
- Site conditions
- Basis of design
- Standards and regulations
- Technical/functional specifications
- Project execution requirements
- Budget estimates
- Monitoring and maintenance requirements
- HSE requirements
- QA/QC requirements
- Interfaces
- Assistance with offer selection



Belgium, BOG - Alpha Island : Engineering Office for Elia NV with a varying range of tasks.



France, renewal of maintenance dredging fleet Dragages-Ports: Pre-dimensioning study and drawing-up of technical specifications for a series of new medium-sized TSHD.



Supervision and control



Belgium, C-power windmill farm



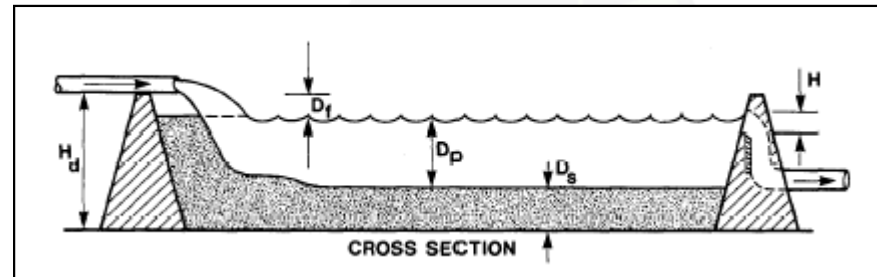
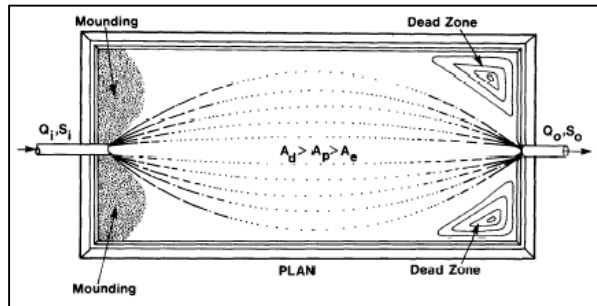
Uruguay, offshore LNG terminal Montevideo



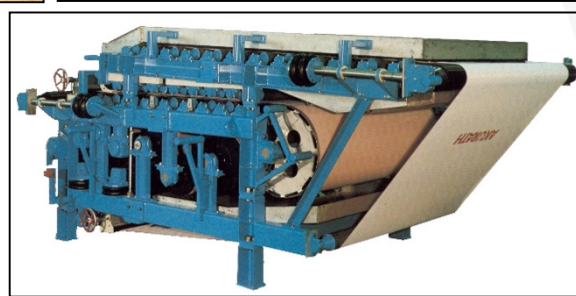
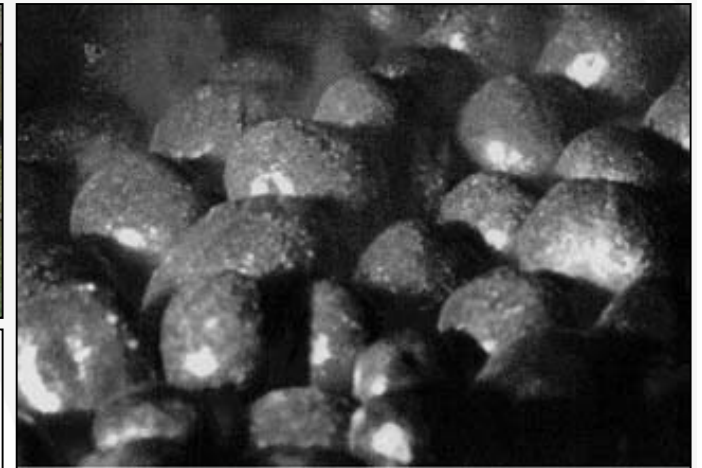
Ghana, ADA coastal protection with beach nourishment and groynes

Disposal and treatment of dredged material

- Design of containment areas



- Evaluation of different disposal and treatment options

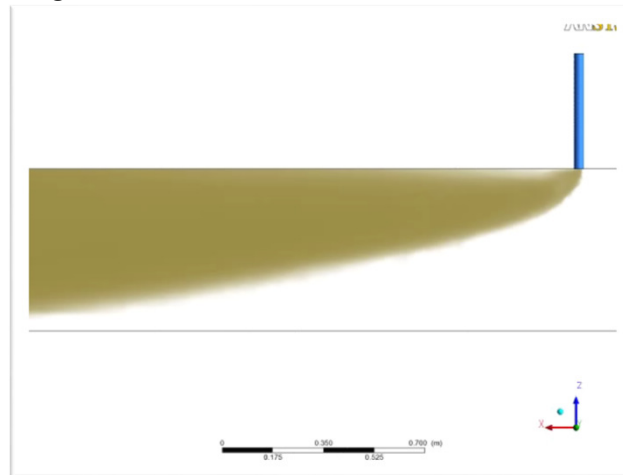


Environmental assessment and monitoring

- Turbidity generation by dredgers
- Plume modelling
- Plume tracking & tracer studies
- Estimation of overflow losses
- Monitoring of dredging activities
- Mitigating measures
- Assessment of dredging and dumping strategy
- Assistance with the application for permits and EIA's



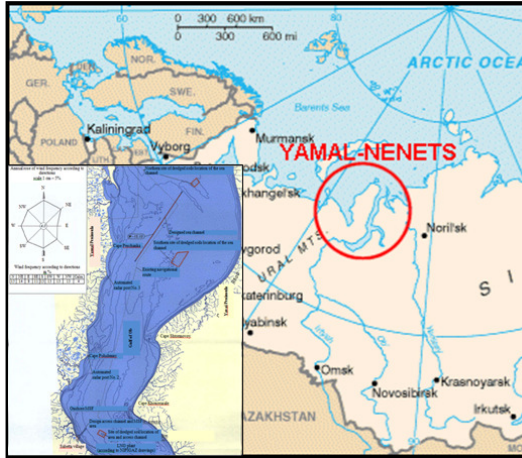
Belgium, PhD thesis



Silt profiler

Supervision and control (environmental)

- **Russia, Yamal LNG Terminal Sabetta (DEME):** environmental witness
- On site: Review and supervision of Environmental Management Plan



Exeptional
location in
Siberia



Supervision and control (environmental)

- **Russia, Yamal LNG Terminal Sabetta (DEME):** environmental witness
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YSI-sonde measurements
No overflowing during dredging
Waste segregation



Supervision and control (environmental)

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- On site: Review and supervision of Environmental Management Plan



Hazardous product management
Marine Fauna spotting

Young CEDA

- Biannual meetings with the Board:
 - 2013: Hamburg
 - 2014: London & Delft
- Involvement in committees:
 - 2012 and 2013: Audit committee
- Events per country:
 - 2014: visit Amoras and Antwerp harbour

