Dredging for Sustainable Infrastructure

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DREDGING FOR CENTURIES

Reconstruction of the mud-drag by Leonardo da Vinci
FROM REACTIVE TO PROACTIVE
ADAPT TO NATURE
Building with Nature / Nature Based Solutions / Engineering with Nature
‘A design process focused on working with natural dynamics and/or providing ecosystem services as part of designing hydraulic structures.’
SUSTAINABILITY

Our ambition is to achieve dredging projects that
- fulfil their primary functional requirement
- generate added value to the system
- proactively engage stakeholders

Our book provides guidance to make this possible

Figure 2.2: Principles of sustainability
LINK WITH SDG’S
“The benefits that humans derive from nature”
KEY ENABLERS

1. Use Ecosystem Approach

2. Stakeholder Engagement

3. Apply Adaptive Management

4. Seek Win-Win Solutions
VISION AND VALUE CREATION

value

time
CORPORATE VALUES

- Marine ingenuity
- Innovation
- Entrepreneurship
- Knowledge & passion

- Care for our people
- Care for a Sustainable world
- Reliable partner
- Responsible partner
- Deliver excellent work

- Involved
- Competent team
- Professional & dedicated
- Visible leadership

- Business first
- Competitive
- Adaptable & flexible
- Operational excellence

we create

we care

we succeed

we work together
PlumeGuard: Mobile measurement frame to measure the water quality (turbidity)

FaunaGuard: Instrument to keep the sea life temporarily out of a construction zone

ReefGuard: Mobile laboratory for coral reef rehabilitation
PROJECT / EQUIPMENT INNOVATIONS
EXAMPLE HORSESHOE BEND DREDGING
SUSTAINABLE PORT DEVELOPMENT

- **Maintenance dredging**
  - Keep waterways in good conditions

- **Capital dredging**
  - Broaden, deepen & (re)develop access channels
  - Reclaim land for port & industrial area, quay walls, berths
  - Optimal coastal protection solution for the port (soft/hard)

- **Port expansion**
  - New (container) terminals
  - Recent example: Tanjung Priok, Puerto Moin

- **Greenfield port development**
STAKEHOLDER ENGAGEMENT → INCREASE PROJECT VALUE
LONG TERM VALUE
STAKEHOLDER INVOLVEMENT → RISK REDUCTION

Sustainable Project development

Traditional Project development

Initiation

Planning & Design

Construction

Operation & maintenance

Low ← Succes of environmental and societal project implementation → High
EARLY CONTRACTOR INVOLVEMENT

- Working with our clients from the very first moment

- Share best practices with clients

- Provide innovative concepts and engineering solutions to add value

- Work with clients on solutions to maximise environmental, social and economic impact

- Facilitate and/or participate in financing of the project
PUBLICATION OF THE BOOK

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www.iadc-dredging.com

www.dredging.org

www.sustainabledredging.com
THANK YOU!

QUESTIONS?

we care ( )