 Jan De Nul <small>G R O U P</small>	CO2 PERFORMANCE LADDER	5D1 – 5D3
	SECTOR-WIDE CO ₂ EMISSIONS REDUCTION PROGRAMME	REVISION 1.0

Date	07/06/2019	15/07/2020						
Revision	00	1.0						
Rem.	BP	RHA						

1 15% REDUCTION ON 80% OF MAINTENANCE DREDGING CONTRACTS IN FLANDERS

1.1 DESCRIPTION OF THE MEASURES AIMED AT WITHIN THE PROJECT

Jan De Nul want to work actively towards achieving their 2022 minimum reduction obligation of 15% CO2 emissions on 80% of maintenance dredging contracts in Flanders, in cooperation with

- The Flemish Authority – Maritime Services and Coast Agency – hereinafter “MDK”
- The Flemish Authority – Department Maritime Access – hereinafter “aMT”
- De VLAAMSE MILIEUMAATSCHAPPIJ – Division Air, Environment and Communication – hereinafter “VMM”
- De Vlaamse Waterbouwers VZW – hereinafter “VW”
- Zero Emission Solutions – hereinafter “ZES”
- Goodfuels – hereinafter “GF”

This is how we want to make a maximum effort to encourage other businesses within our sector to implement energy or CO2 reduction measures opening up many opportunities.

In order to highlight our absolute pioneering role, we launched a pilot project on 1st September 2019, a new 3-year contract for maintenance dredging works in the Nieuwpoort marina, commissioned by the Maritime Services and Coast Agency.

We make the commitment to demonstrably reduce CO2 emissions by 15% with respect to the fuel consumption target (baseline = footprint September 2018) on the dredging works carried out as part of this project.

We do this by using sustainable innovative drop-in diesel and maximum operational optimisations.

1.1.1 QUANTITATIVE ESTIMATE OF THE POTENTIAL SAVINGS OF THIS SPECIFIC MEASURE


The total reduction in the sector aimed for with this programme is ± 70,000 tonnes CO₂/year.

1.1.2 MOTIVATION FOR IMPLEMENTING THE REDUCTION PROGRAMME

The ‘obligation’ to encourage contractors actively to achieve significant reductions lies squarely with the authorities who draft the specifications, and this deserves further action in the form of sector-wide lobbying, described in further detail under point 4.

1.1.3 TARGET GROUP OF THE REDUCTION PROGRAMME

Target group: Flemish hydraulic engineering firms and dredgers

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Action plan:


- Francis Verhees – Manager Dredging Works Benelux – is a director of the sectoral organisation Vlaamse Waterbouwers vzw. He manages the fixed agenda item regarding active CO2 reduction in projects at meetings of the board of directors.
 - The target group is reached in 2 ways: directly by sharing ideas at meetings of the board of directors and indirectly through contacts of the sectoral organisation with authorities, which will result in concrete emission reduction obligations in specifications in the medium term.
- Bart Praet – Division Manager Dredging Works Benelux – consults once a year with VMM, who gives him an objective picture of CO2 emissions in Flanders.
- ZES are entrusted with the annual validation of reductions achieved by the Nieuwpoort project.
- Francis Verhees – Manager Dredging Works Benelux and Bart Praet – Division Manager Dredging Works Benelux – act in tandem lobbying the Flemish Authority; the Maritime Services and Coast Agency and the Division for Maritime Access together manage all major maintenance dredging contracts in Flanders.
 - They organise consultations with each other to bring about open dialogue. They use data provided by VMM and ZES as leverage to bring about action at government level.
 - This makes it possible to reach the target group in the medium term through concrete reduction obligations embedded in specifications.

1.2 RESULT

- 26.09.2019: contracting of Tender 16EH/19/01 (Dossier 219.000) ‘Framework Contract Beach Nourishment Flemish Coast’ (MDK)
Here, ‘ecological sustainability criteria’ were introduced in the form of an Environmental Impact award criterion where 10/100 points could be earned.
 - 6 points awarded if you aimed for Level 5 (certificate or for the project)
 - 4 points for specific measures taken to reduce the environmental impact of emissions at sea and on land of the dredging and discharge spread to be used.
- 04.11.2019: quote aMT in press release 100% renewable fuel
- 19.01.2020: appeal for tenders and implementation of beach nourishment Wenduine (MDK-Dossier 219.000-B1)
- 25.02.2020: deployment of Sanderus (Ulev) for maintenance dredging works in Belgium (aMT)
- 15.05.2020: appeal for tenders and implementation of beach nourishment Bredene (MDK-Dossier 219.000-B2)
- 01.07.2020: appeal for tenders beach nourishment Raversijde (MDK-Dossier 219.000-B3)

1.3 TIME-FRAME

Q2/2019 until 2022

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1.4 BUDGET

- 5,000€/year (hourly rate).
- Extra fuel cost paid by the client in projects

1.5 EXPERTISE

- Francis Verhees, Bart Praet: 20+ years experience in dredging works
- Michel Deruyck: 20+ years experience Technical Dept. Vessels and Fuel Cell JDN
- Hannelore Ruytjens and Stijn Arys: experience with Energy/CO₂PL, QHSSE and certification

2 SUSTAINABILITY REGULAR MAINTENANCE OF THE DUTCH COASTLINE

2.1 DESCRIPTION OF THE MEASURES AIMED AT WITHIN THE PROJECT

The procurement programme Innovations in Coastline Care aims at maximum sustainability of the regular maintenance of the Dutch coastline in combination with unchanged cost-effectiveness by 2024.

Within the programme, innovation is not the objective, but the means to achieve the general climate ambitions of the Netherlands in regular coastline maintenance too.

The programme is implemented by Jan De Nul in cooperation with:

- Rijkswaterstaat Programmes, Projects and Maintenance
- LBP Sight for verification of and assistance with the quantification of sustainability
- Supplier and/or technical contractor of equipment modifications needed to achieve sustainability

2.1.1 QUANTITATIVE ESTIMATE OF THE POTENTIAL SAVINGS OF THIS SPECIFIC MEASURE


The total reduction in the sector aimed for with this programme is ± 80-90% of emissions caused by regular maintenance activities of the Dutch coastline.

2.1.2 MOTIVATION FOR IMPLEMENTING THE REDUCTION PROGRAMME

Dredging companies are actively encouraged to take part in this programme: on the one hand by selecting a winner who can carry out the beach nourishment works with the winning innovation as from 2024; on the other by getting the opportunity to develop an innovation in cooperation with the contracting authority.

2.1.3 TARGET GROUP OF THE REDUCTION PROGRAMME

Target group: Flemish and Dutch hydraulic engineering firms and dredgers.

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Action Plan:

Different contractors present their innovations and, together with Rijkswaterstaat, develop it in different processes:

- Process Exploration
- Process Development
- Process Testing and Validation
- Process Implementation

2.2 RESULT

- 07.02.2019: Rijkswaterstaat and Jan De Nul start a partnership to develop the innovation (selection decision)
- 11.04.2019: Submittal of Quality Document presenting the innovation
- 2019: different calculation sessions with Rijkswaterstaat and contractors to establish a standard dredging profile and corresponding emissions as benchmark
- 02.10.2019: Jan De Nul submit their Action Plan to implement the Exploration process
- 15.07.2020: Exploration process successfully completed, including feasibility studies. Development process starts subsequently.

2.3 TIME-FRAME

2019 until 2024

Processes to be implemented:

- Process Exploration
- Process Development
- Process Testing and Validation
- Process Implementation
- Realisation of beach nourishment with major (80-90%) sustainability gain

2.4 BUDGET

- Hourly rates innovation studies
- Technical costs for innovation installation and, if applicable, conversion of equipment
- Intervention Rijkswaterstaat per completed process (€ 25,000 Exploration process; other processes to be specified)

2.5 EXPERTISE

- Francis Verhees, Bart Praet: 20+ years experience in dredging works
- Michel Deruyck: 20+ years experience Technical Dept. Vessels and Fuel Cell JDN
- Evelien Craeynest: 10 years experience dredging works
- Hannelore Ruytjens and Stijn Arys: experience with Energy/CO₂PL, QHSSE and certification