

Dutch Masterplan Sustainable Fisheries (MDV) 2008-2018 -----> *future fishing vessels*

Beamer2000 --->MDV-1 2015--->Circular Design
(SHE) (triple-P) (triple-Z)



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Dutch Fishing Fleet 2018

281x Beamtrawlers/twinriggers 24-40m; 200-1500 kW;
fresh fish/shrimps: North Sea, Wadden Sea, English Channel



10x Pelagic trawlers 120 m; 3000-8000 kW;
fresh frozen fish: North Sea, Atlantic, Pacific Ocean



MDV approach

*economically & ecologically driven +
good working conditions*

- Sustainability is leading (triple-P)
- Public-private cooperation/investment (MDV)
- Launching sustainable proven pilot vessel (MDV-1)
- ROI < 10 yrs. ; Cash flow > 500 keuro/yr.
- Knowledge Transfer (sector, stakeholders)

————> renewing aging North Sea Fleet



MDV-1 Design targets 2010

- Positive businessmodel (earnings↑,costs↓, PROFIT)
- 80 % energy saving (emissions ↓,impact↓, PLANET)
- Good NorthSea working platform (seaperform.↑,PEOPLE)

triple-P sustainable aspects in MDV-1 design

“good for the fishermen, shipbuilders, marine environment “



MDV 1 IMMANUEL
WINNAAR 2016



NEW MDV DESIGN in practice 2015

- Positive Business model γ
- Better quality Fish2Dish γ
- Sustainable Innovation Pillars γ



Masterplan Duurzame Visserij is geselecteerd
in het kader van het Nederlands Operationeel
Programma 'Perspectief voor een duurzame visserij'

Europees Visserijfonds:
Investering in duurzame visserij

MDV Innovation Pillars

- Hullform optimization (resistance↓/seaperform.↑)
- Energy-propulsion installations (efficiency ↑)
- Hybride construction materials (shipweight ↓)
- Market driven fishprocessing (automation ↑)
- Selective fishing gears (selectivity ↑)

MDV Goals realised

- First of the MDV series in transition process/ renewing North Sea Fishing Fleet (MDV-2,3,....)
- Appealing Dutch Design and (research) cooperation (MARIN, TNO, IMARES, ILVO, TU Delft, Dutch Suppliers en -Fishermen)
- Successful pilotvessel (pos.business model)
- Knowledge transfer of the MDV innovations



MDV-1 in practice

Video avaneb siit lingilt

Click to open a video

http://www.kalateave.ee/images/esitlused/MDV-1_in_practice.mp4

MDV successfactors

- Good idea: commitment /feasibility--->MDV business case
- Masterplan: multi-disciplinary team---->MDV-1 pilotship
- Financing: public-private ----->MDV foundation
- Cooperation: fishery sector/fishery research &-colleges
- Knowledge Transfer: sector-,stakeholder meetings/
papers/ journals/radio/tv/website:
www.masterplanduurzamevisserij.nl

FUTURE FISHING VESSELS

DUTCH SUSTAINABLE DESIGN DRIVERS

from: SAFETY & HEALTH re-design (SHE; Beamer 2000)

via: SUSTAINABLE new-design (Triple-P; MDV-1, 2015)

to: CIRCULAR future-design (Triple Z: zero-emissions
zero-waste , zero-accidents; > 2018)

<i>Design Drivers</i>	Beamer 2000 1990s	MDV-1 twinrigger 2015	CE –fishing vessel >2018
Focus	Safety & Health (People)	Business model & sustainable (Profit,Planet)	Value chains (Planet ,Profit, People)
Design (index)	Product (safety)	Product & fishprocess (economy &eco)	Product value chain (circular)
Goals	Improved safety and working conditions	Future proof business models and proven –sustainable (triple-P)	Circular Economy principles (triple –Z)
<i>Ranking</i>	<i>Solution matrix</i>	<i>Innovation pillars & ROI</i>	<i>CEDI decision- support tool*</i>
Methodology	Safety- integrated redesign	Sustainability-integrated design	Circular fishing vessel design
			*) PhD traject

Questions ?



<http://www.masterplanduurzamevisserij.nl/>



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Europees Visserijfonds:
Investeren in duurzame visserij

