



European Fisheries Fund: Investing in Sustainable Fisheries



Net innovations Dutch demersal fleet



Urk, 1 October 2015

Durk van Tuinen

Cooperative Fisheries Organization



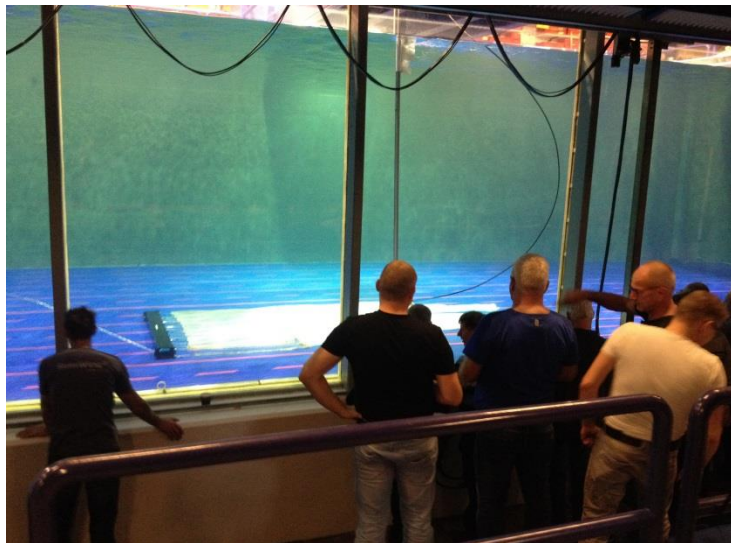
Project information

- Goal: more selectivity in the Dutch demersal fisheries
- Cooperation of scientists, fishermen and technicians
- Different demersal fisheries:
 - Beamtrawl (beam and sumwing)
 - Pulstrawl
 - Ottertrawl (twinrig/quadrig/outrig)
 - Flyshoot
- Biggest challenge: 80 mm mesh size fisheries (sole & nephrops)
- Planning of the project:
 - Scale models in flumetank
 - Testing prototypes on board (selfsampling)
 - Detailed surveys by scientist

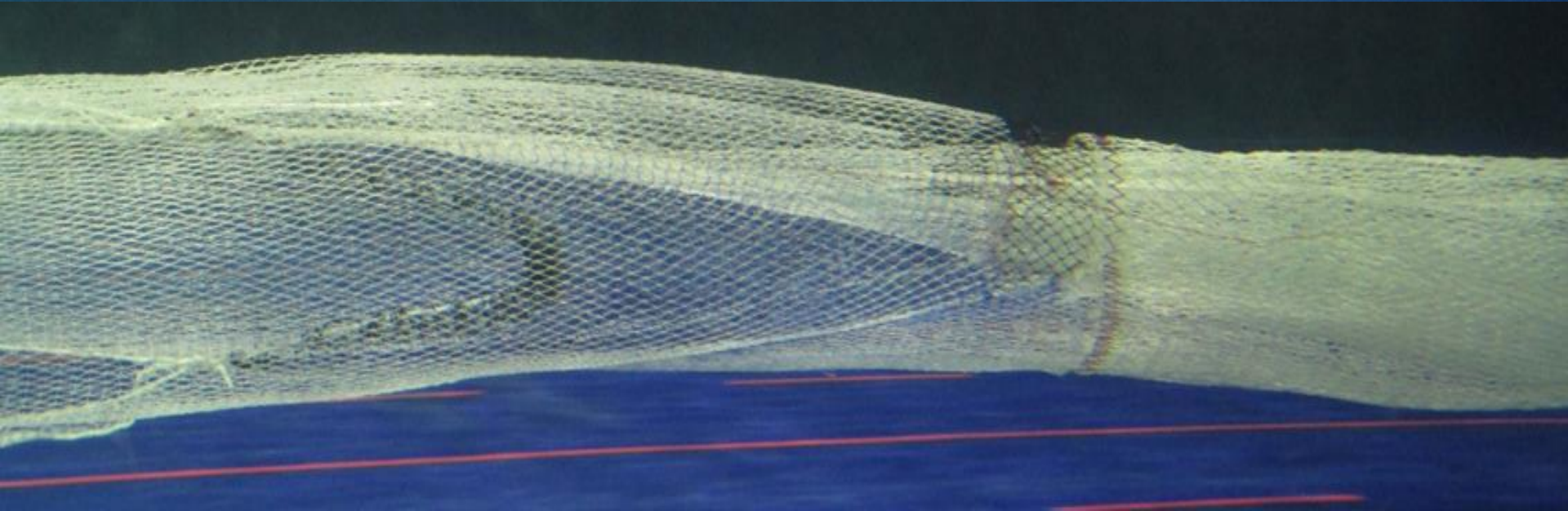
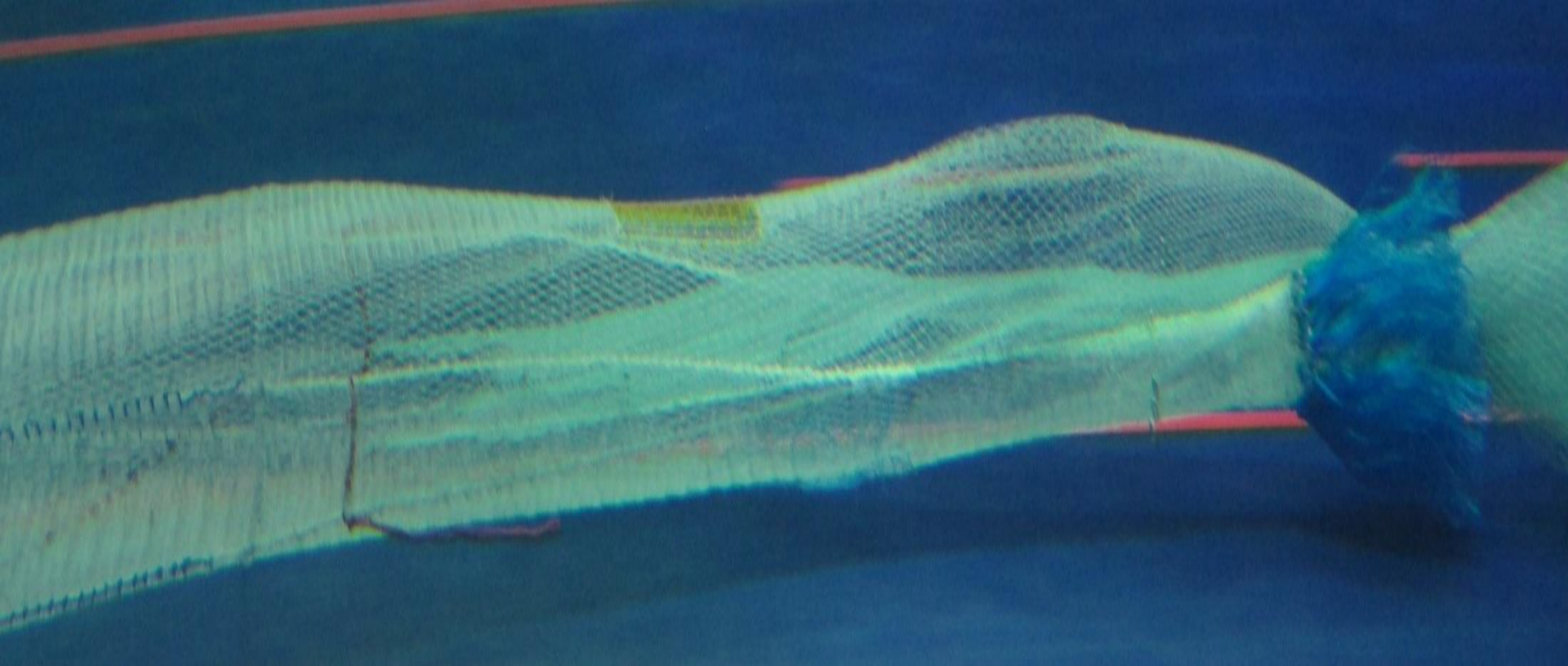


Flumetank Hirtshals (Danmark)

- Test with 5 scale models with sumwing and APG
- Test with 1 scale model ottertrawl
- Wings have less water pressure in the net than beams
- Select three scale models for the first tests at sea (TX 68, ARM 22 en TX 36)



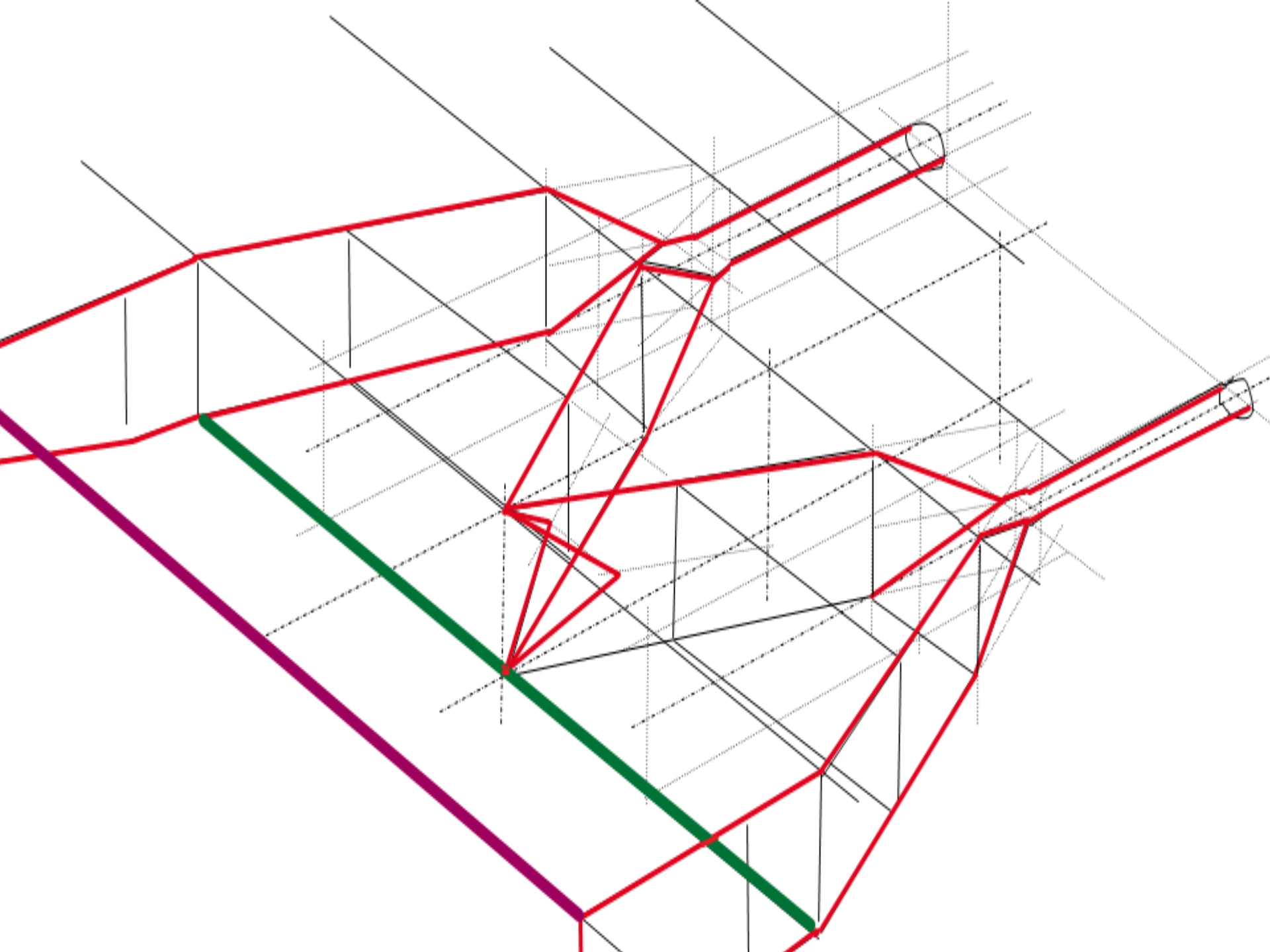






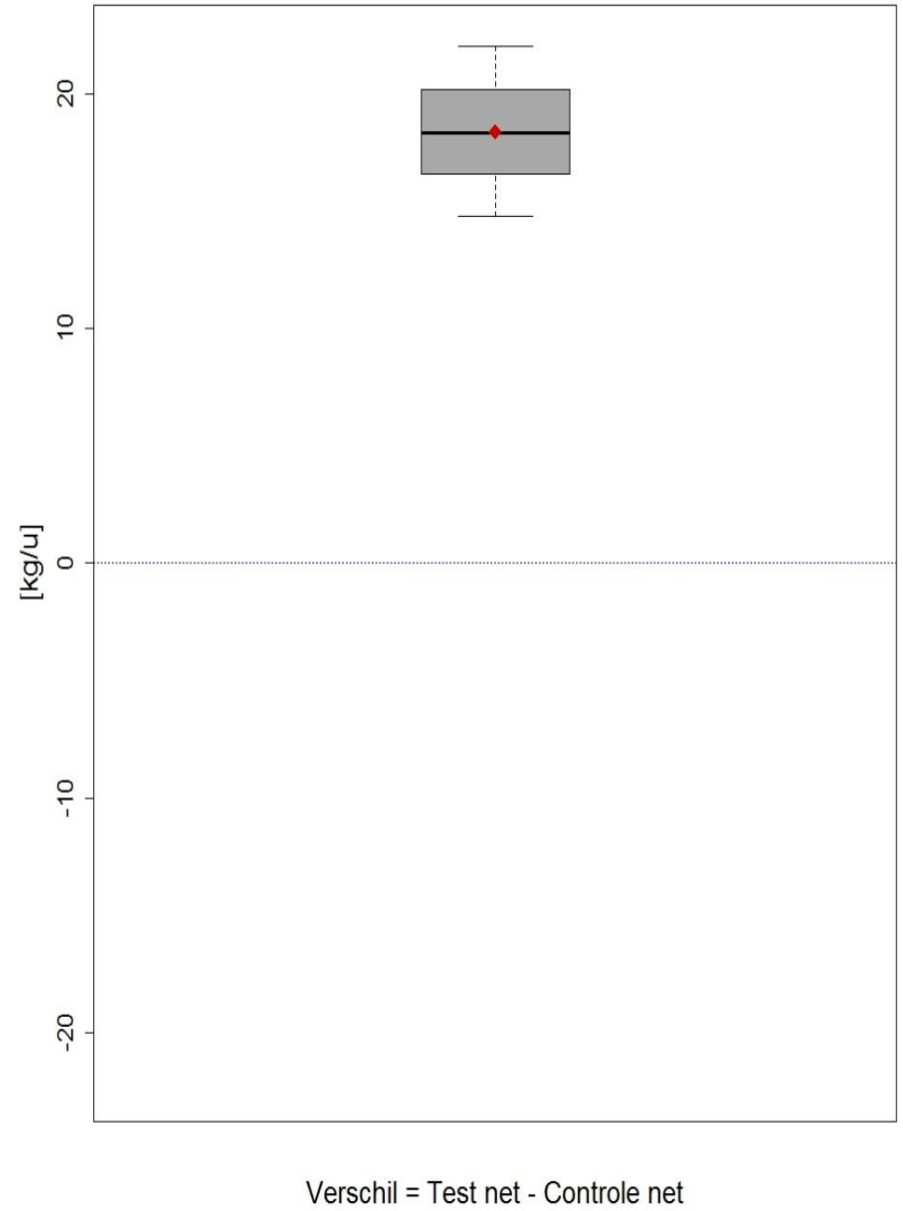
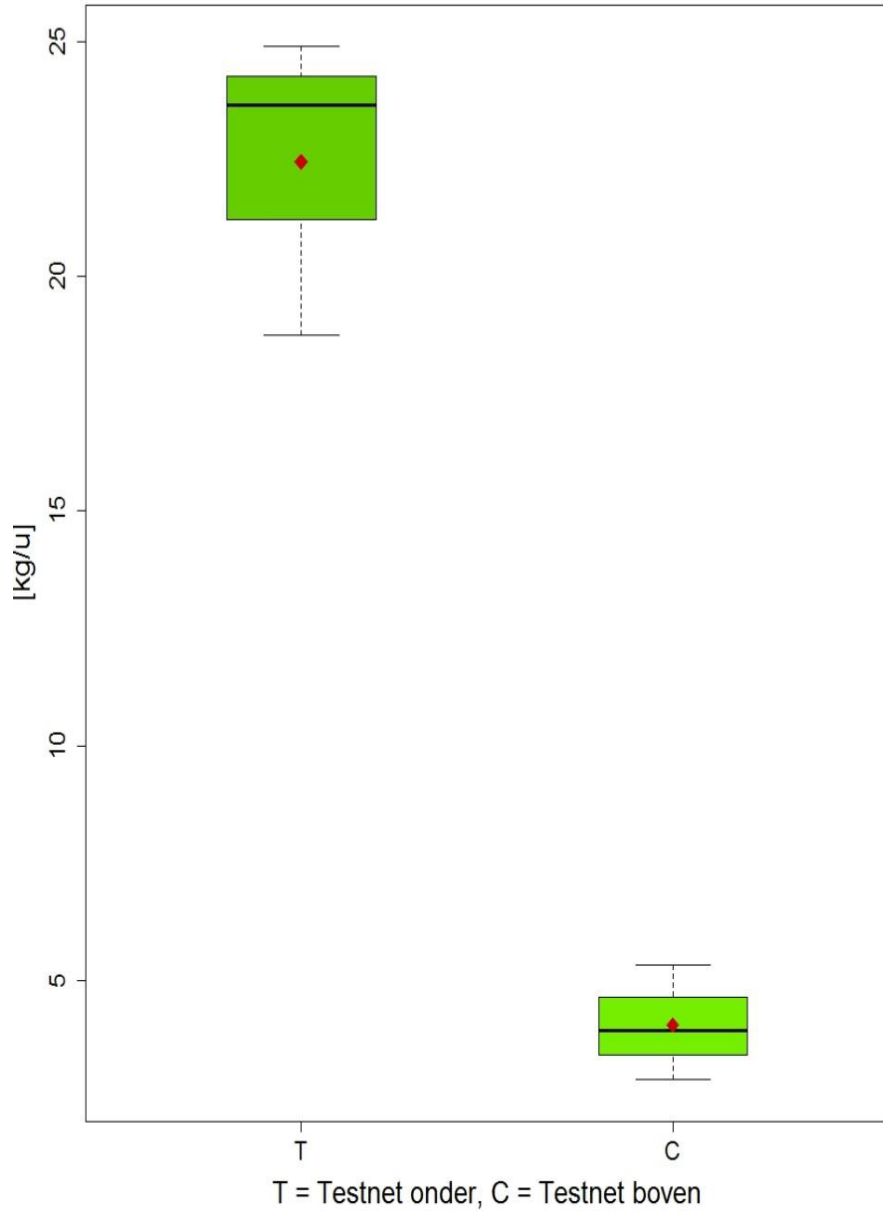
Tests at see pulstrawl sole fishery

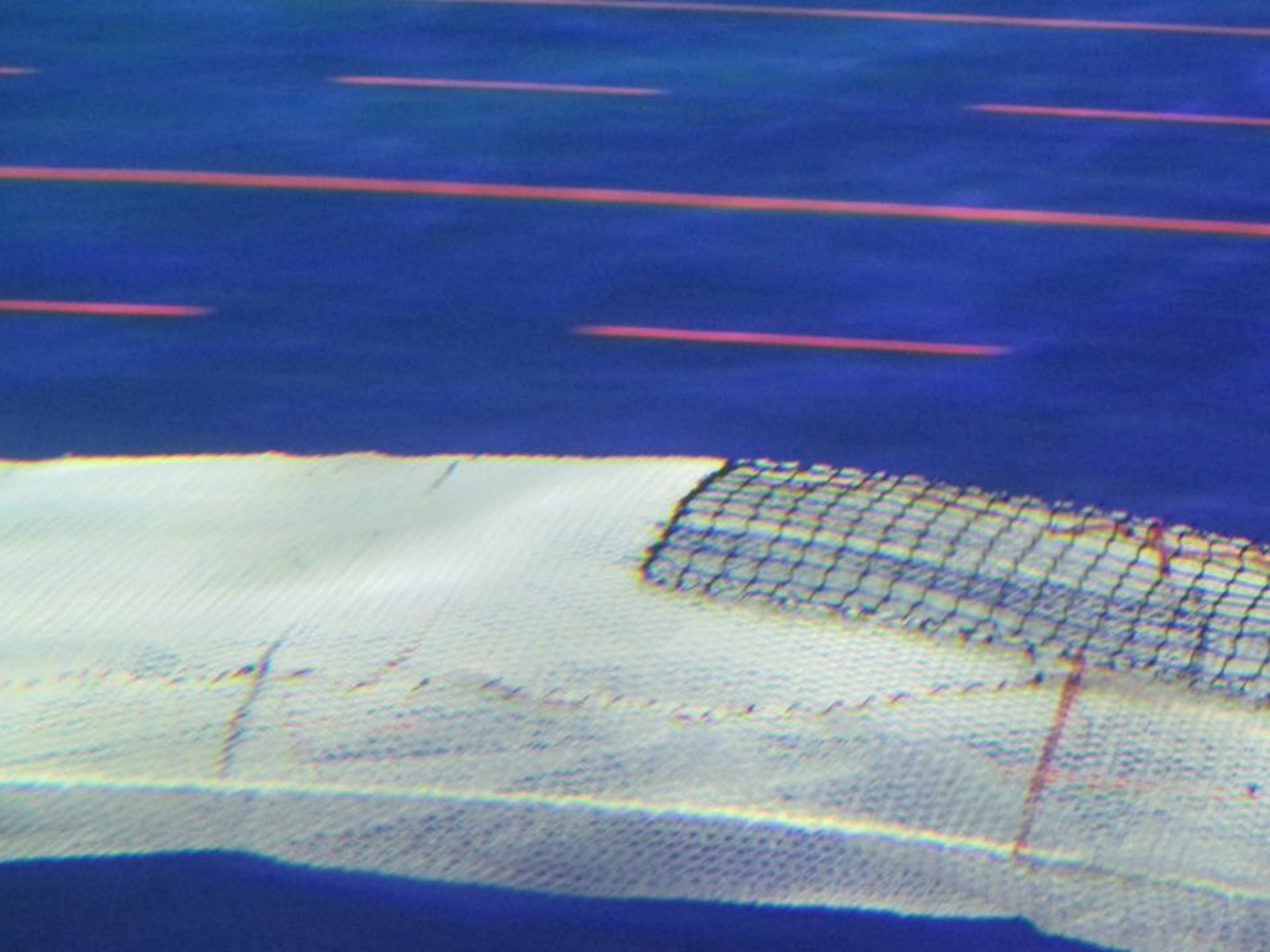
- TX 36 – pulswing 80 mm sole (region west)
 - Seperation panel (2 cod-ends)
 - Sampling result: max. 90% sole bottem cod-end
 - Average: discardsreduction 25%, loss of 10% sole
- TX 68 – puls apg 80 mm sole (region west)
 - Seperation panel (1 cod-end)
 - Seperation panel with a small meshsize
 - Panel in the top (200 mm meshsize)
 - Average: discardsreduction 30%, loss of 10% sole
- ARM 22 – pulswing 80 mm sole (region south)
 - Seperation panel (1 cod-end)
 - Seperation panel with a small meshsize
 - Panel in the upper half (200 mm meshsize)



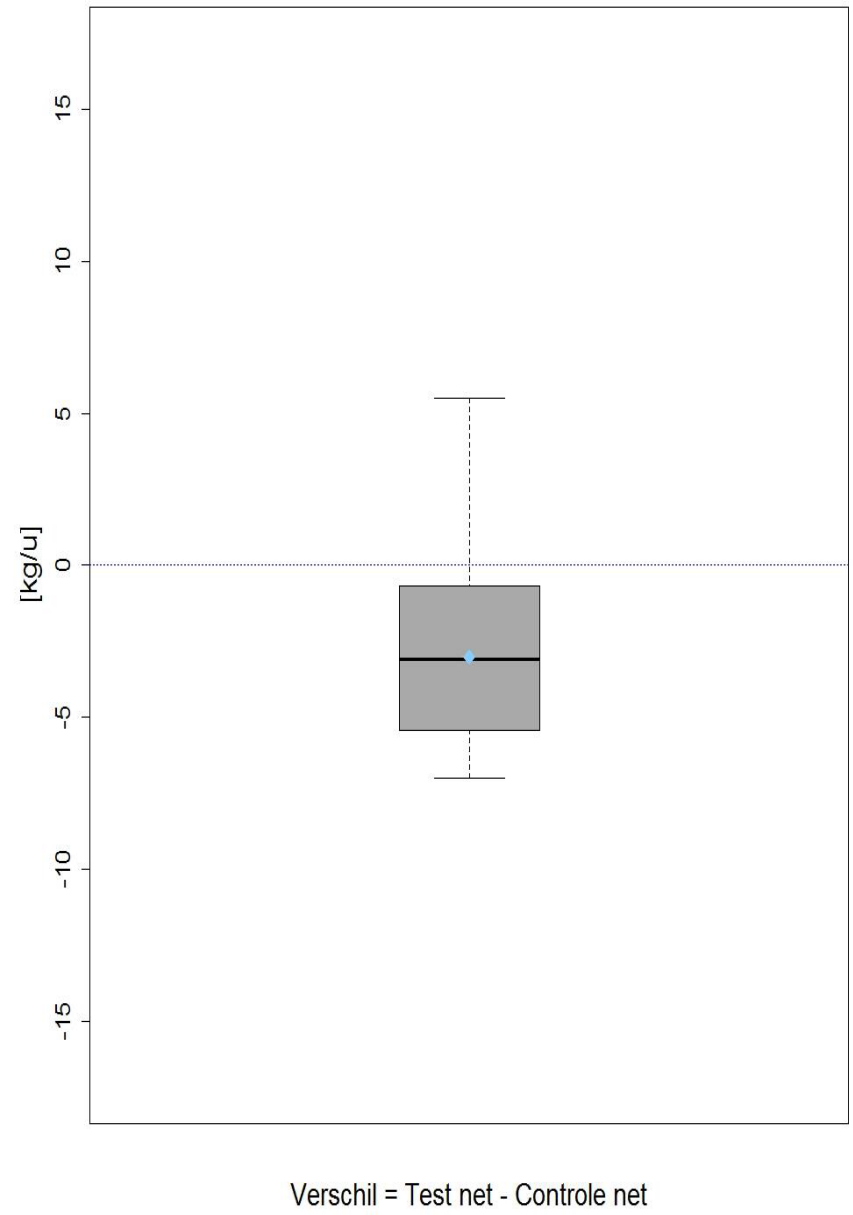
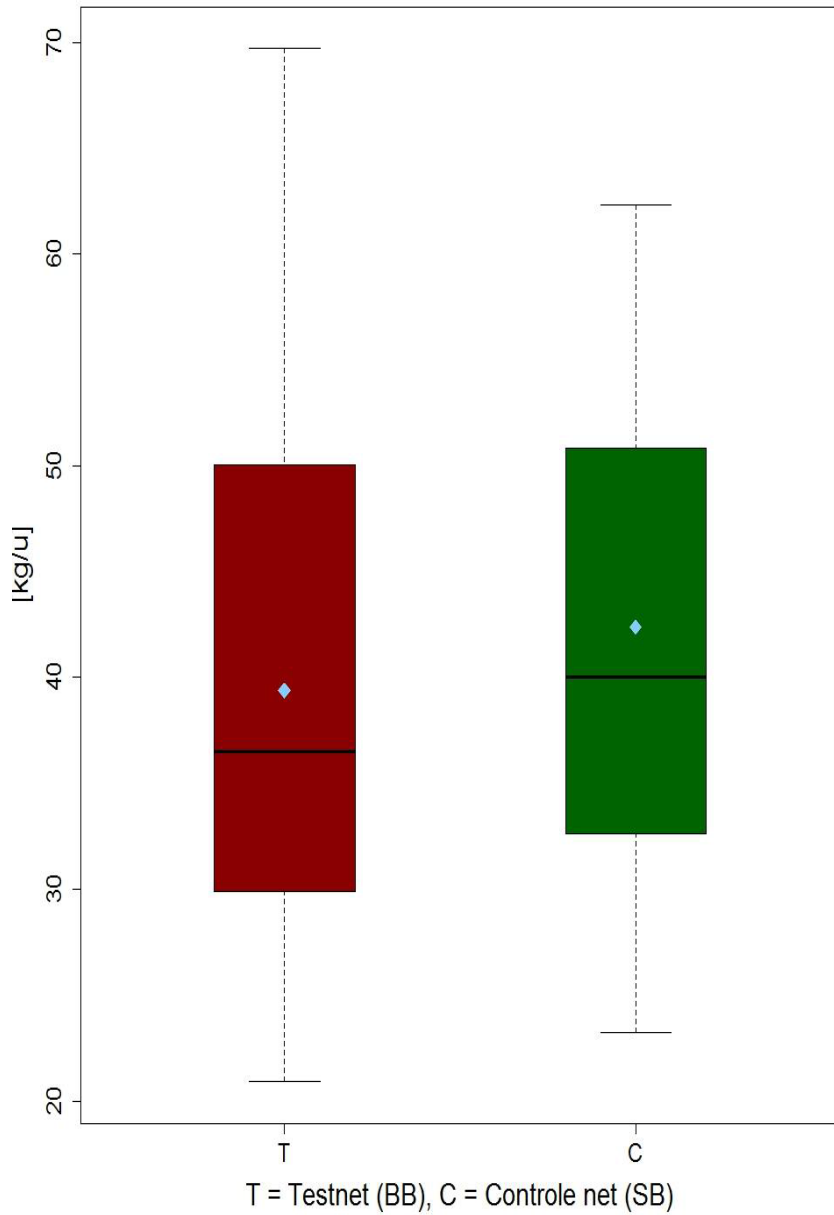


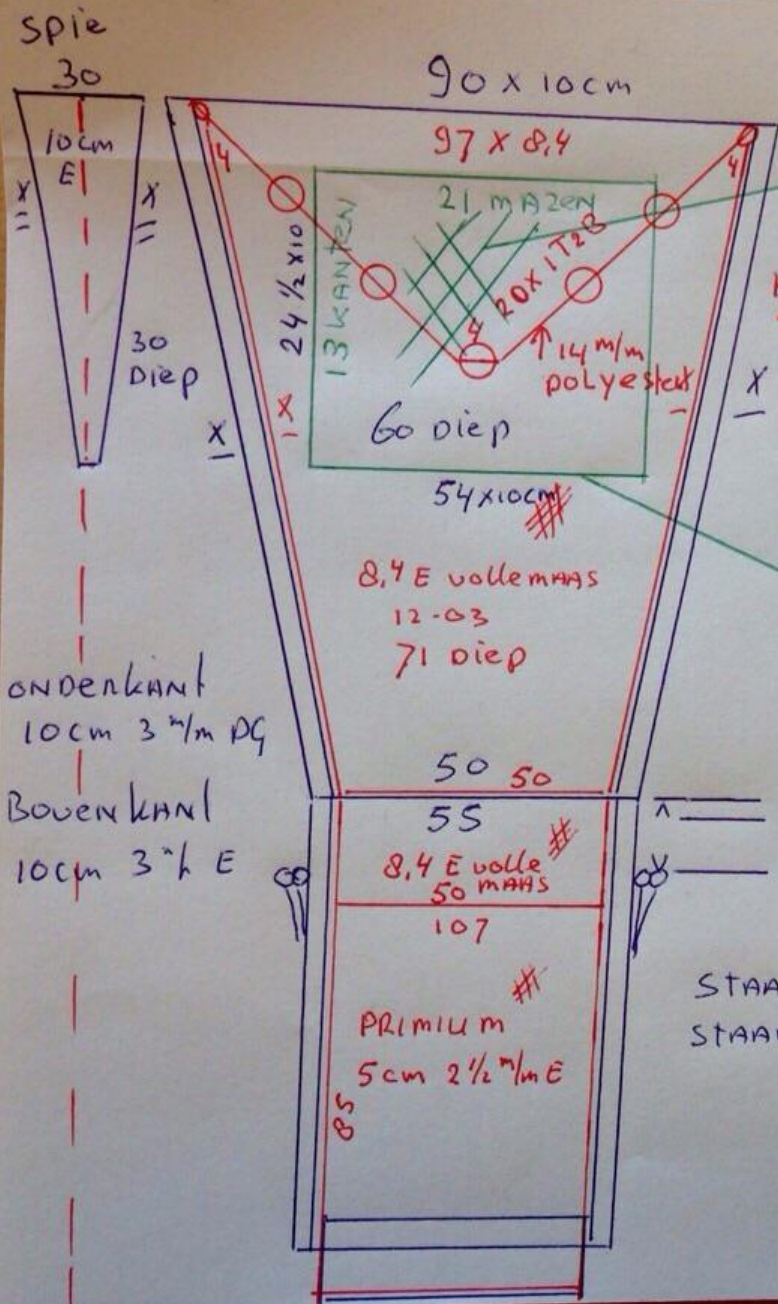
Boxplots Vis.Land.h met onder en boven TX36 wk 16 2015



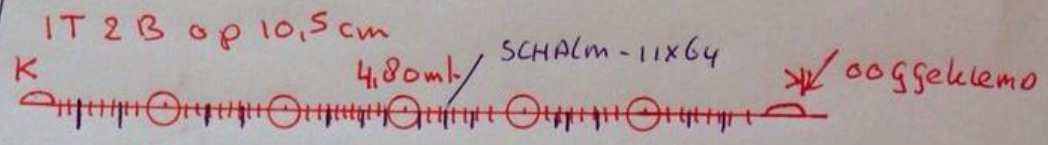


Boxplots Vis.Land.h TX68 wk 21 2015





PANEEL
20 cm primium 5 m E



DRIJVEN 20 cm Geel gaten in geboord
 STAALDRAAD - 10 m/m RUS
 RUBBENSCHIJ SOXID er tussen

20 p 1
30 p 1

RINGEN voor
 Beugel op 1,5 kanten
 OREN op elkous 4"
 9 kanten

STAANT BOVEN 12-62 RUBBER 89 m% volle maas
 STAANT ONDER 12-62 RUBBER 87 m% volle maas

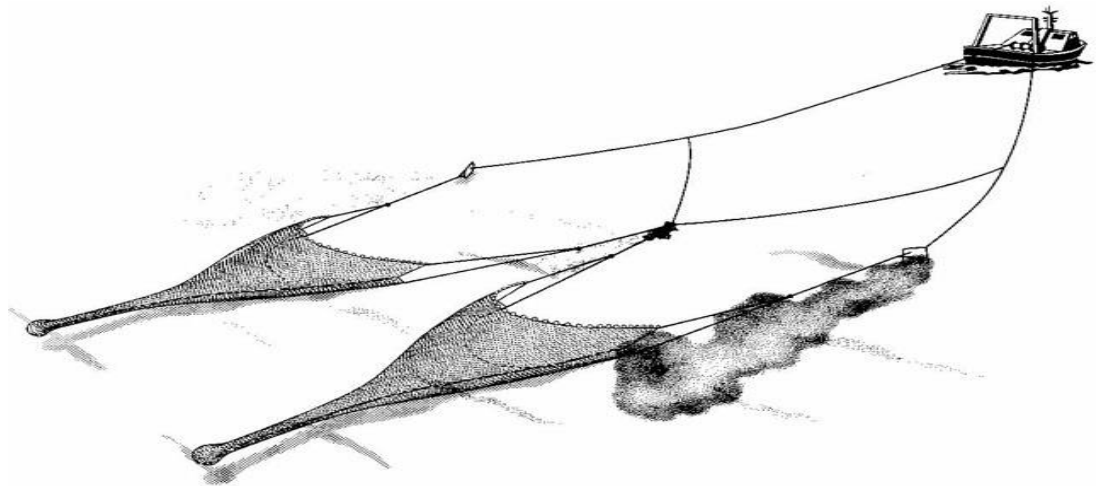
Zie Foto's

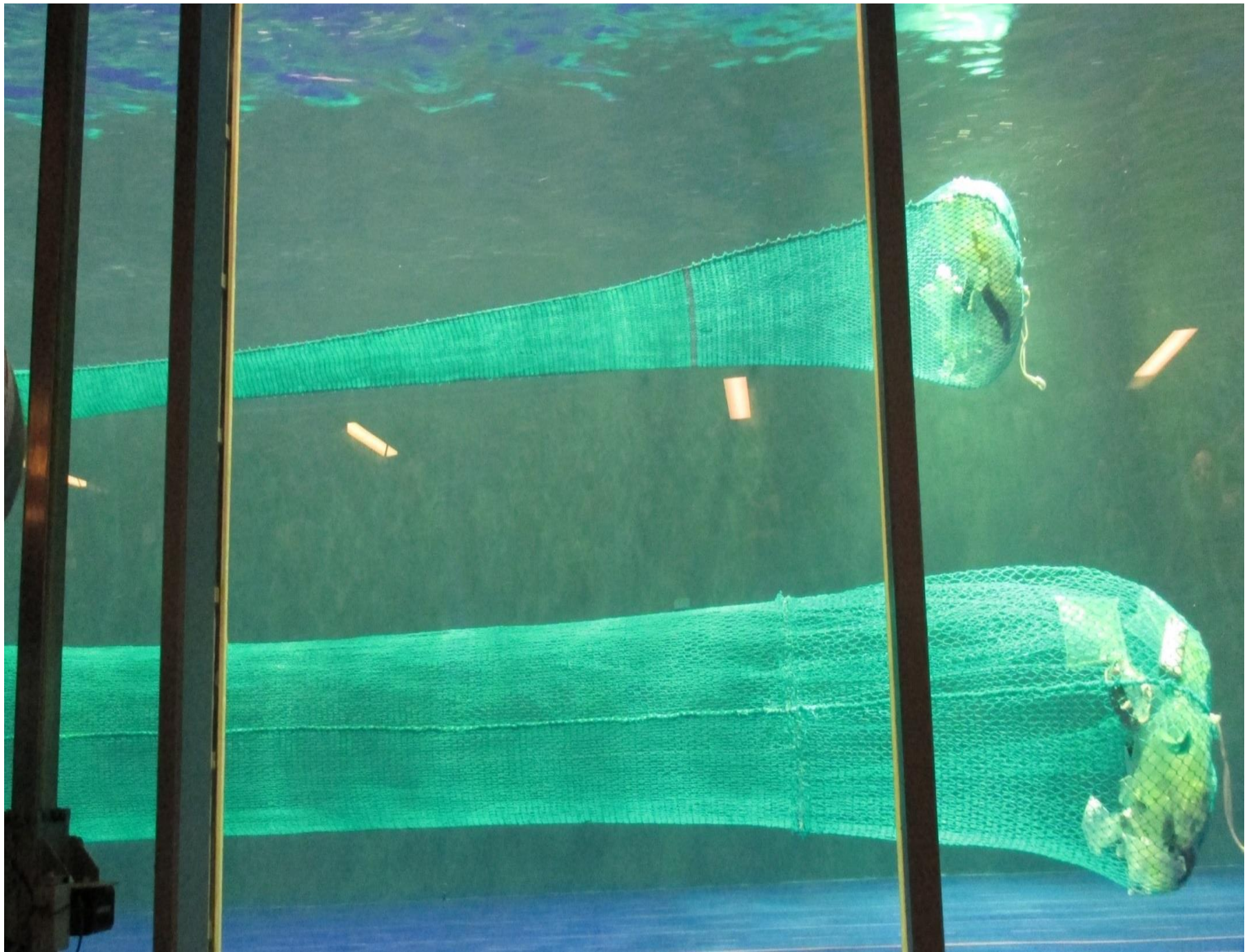




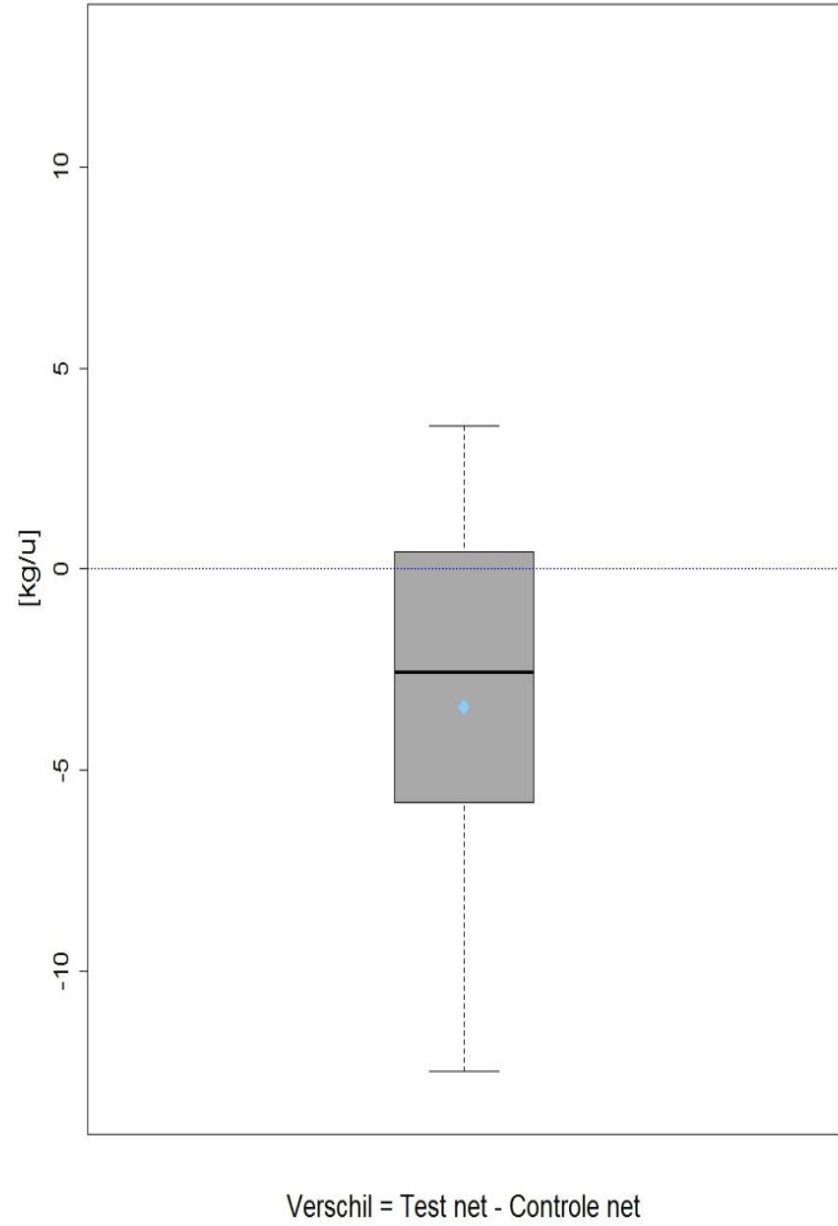
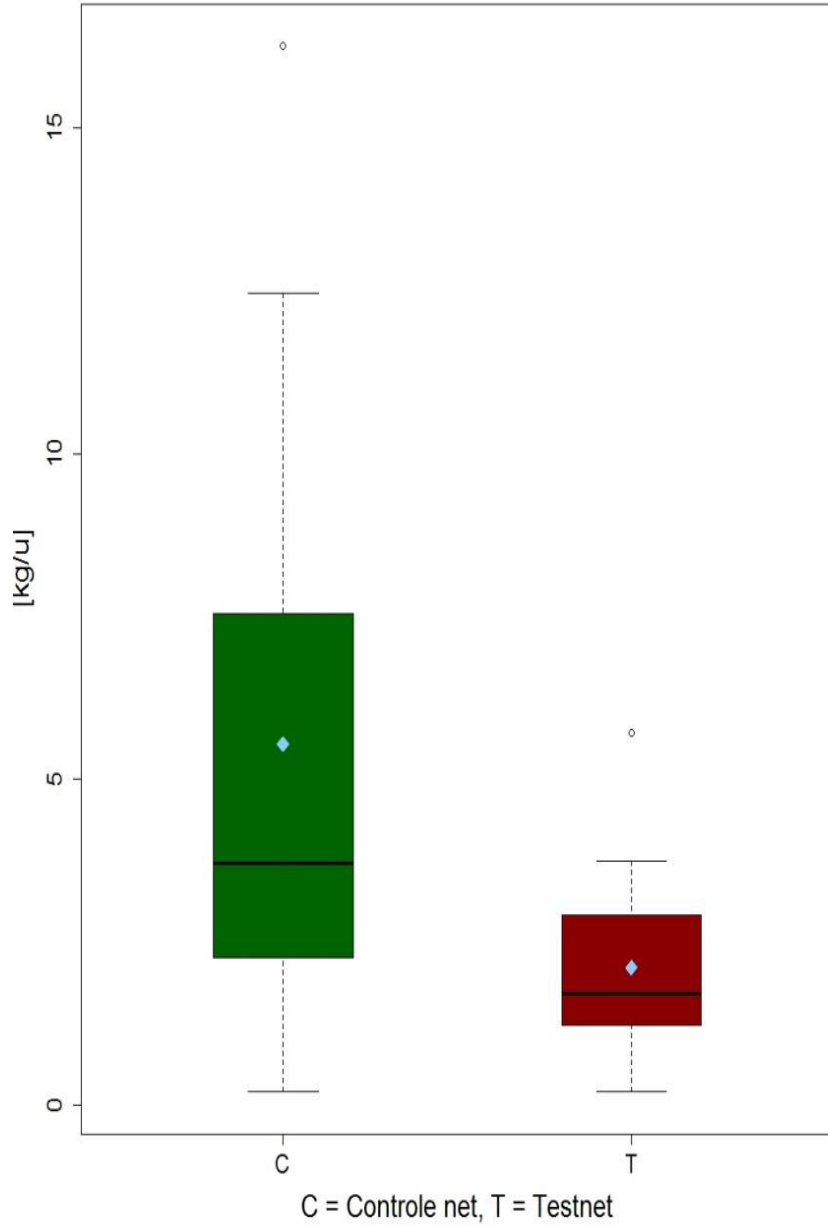
Plaice fisheries

- Meshsize 100 mm+
- Gears: twinrig, outrig, beamtrawl and flyshoot
- Biggest challenge: keep the lemon sole
- Test on board OD 6 (twinrig) and GY 57 (twinrig)





Boxplots kg_lem_g_u GY57 wk 16 2015





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Nephrops fisheries



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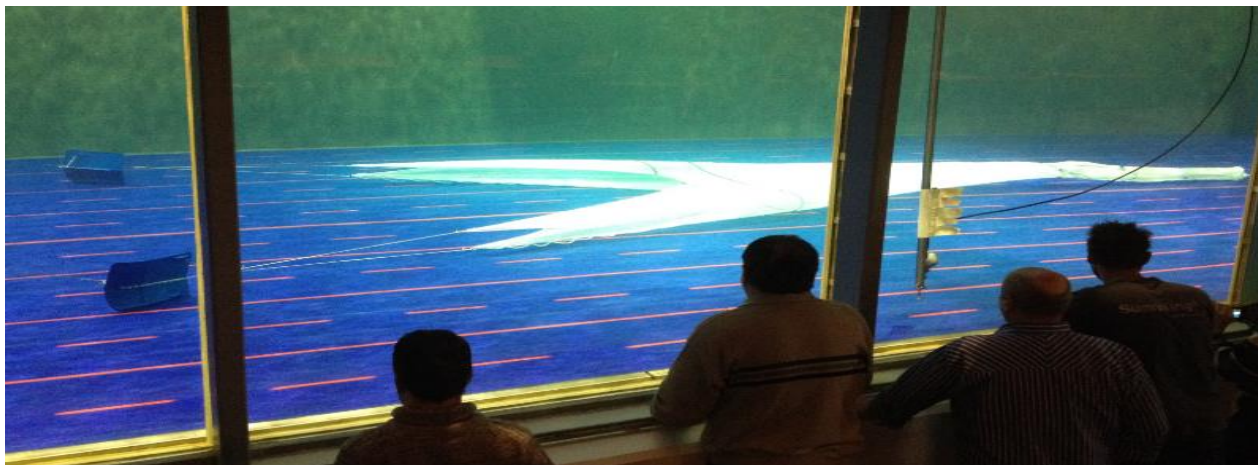
Durk van Tuinen

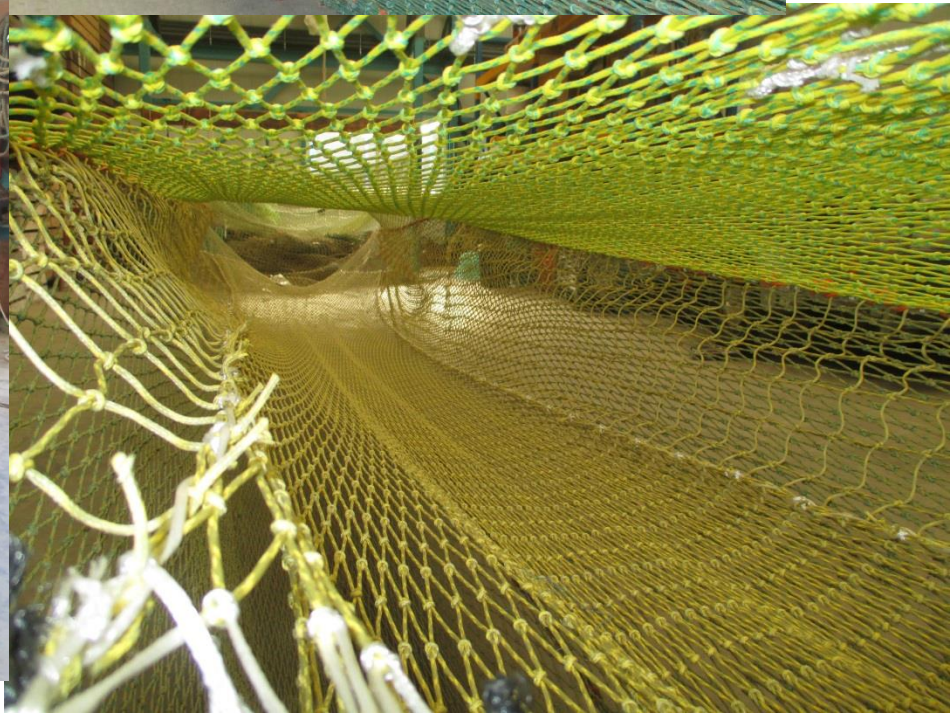
Cooperative Fisheries Organization



Results

- Tested 5 gears at sea (WR 189) in 2014
- Minimum result discardsreduction and less catch
- Worked on a new scale model and tested in the flumetank
- Test at sea with the WR 189
- Results are promising









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Europees Visserij Fonds: investering in duurzame visserij



Netinnovatie Nederlandse kottervloot



Coöperatieve Visserij Organisatie

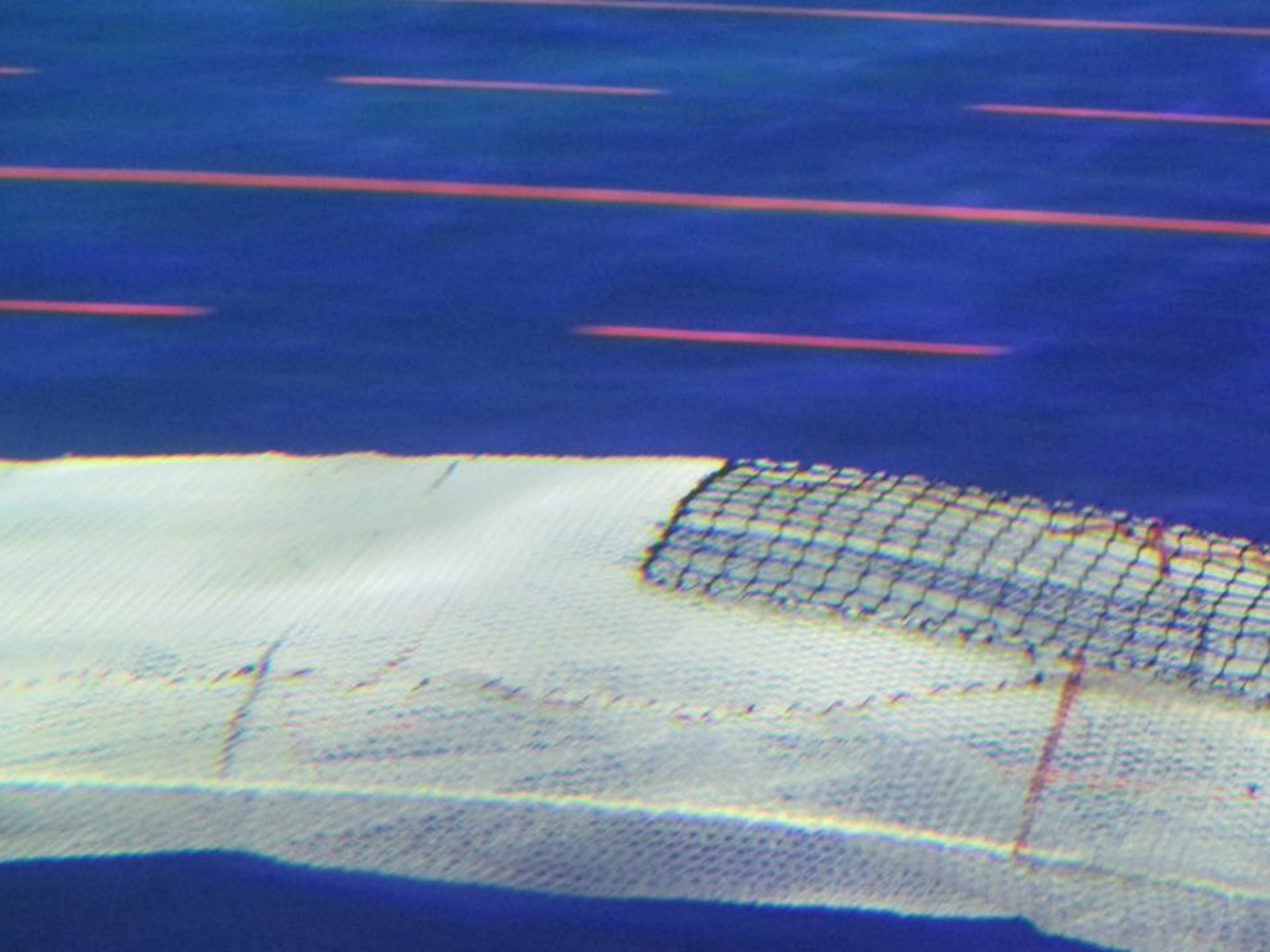


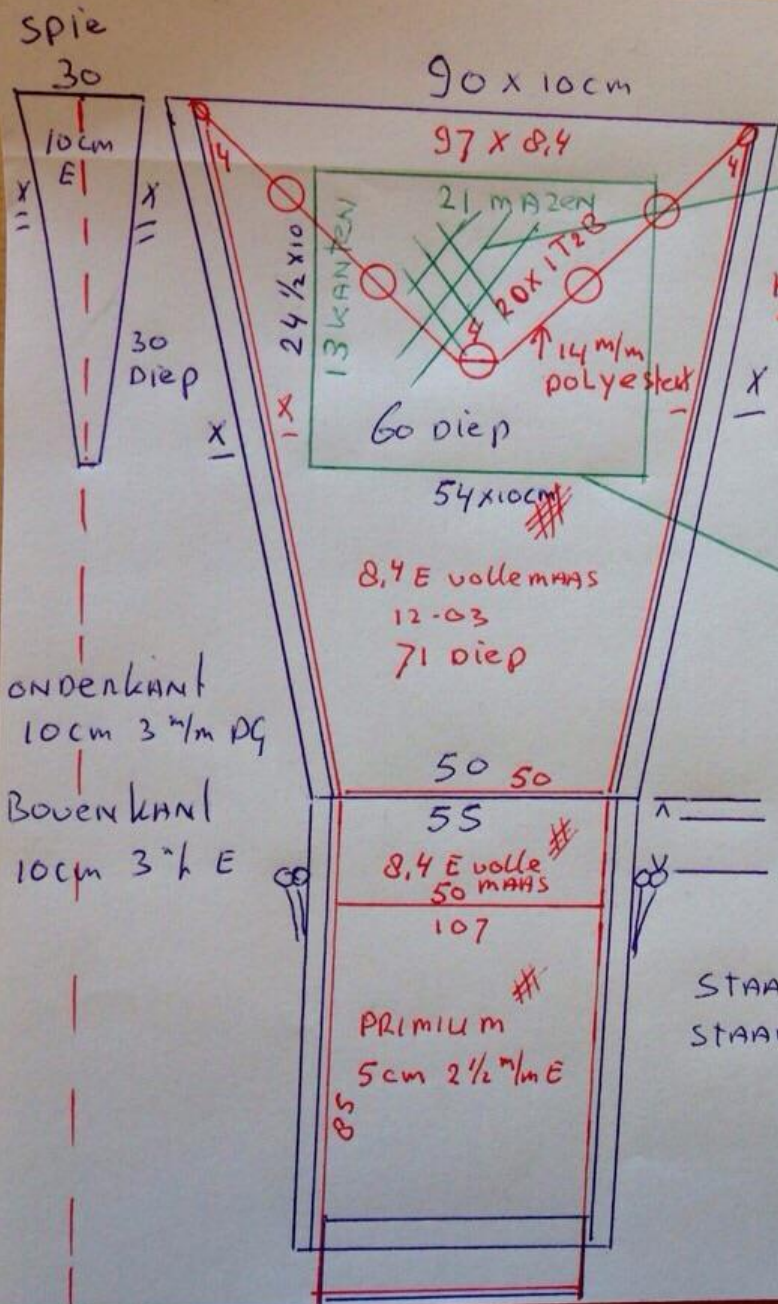


Resultaten tongvisserij (puls)

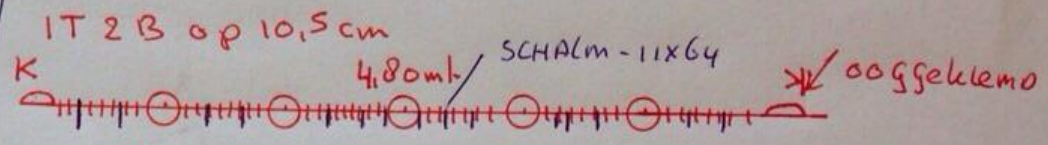
- TX 36 – pulswing 80 mm tong (regio west)
 - Scheidingspaneel met 2 zakken, onderzak 80 mm, bovenzak 120 mm
 - Sampling resultaat: max. 90% tong in onderste zak
 - Gemiddeld: discardsreductie 25%, verlies 15% maatse tong
- TX 68 – puls apg 80 mm tong (regio west)
 - Scheidingspaneel (1 kuil)
 - Paneel in de bovenzijde (200 mm maaswijdte)
 - Gemiddeld: discardsreductie 30%, verlies 10% maatse tong







Paneel
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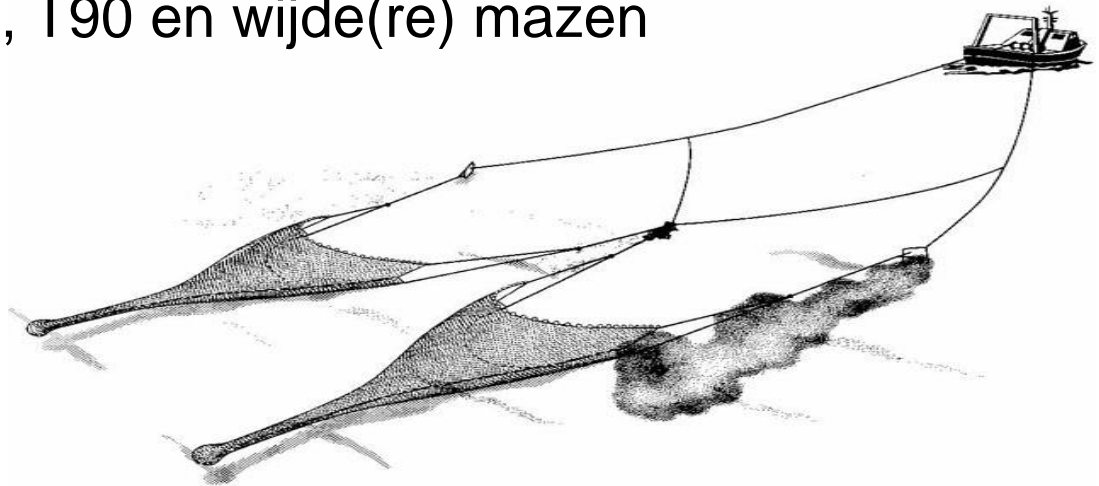
Zie Foto's

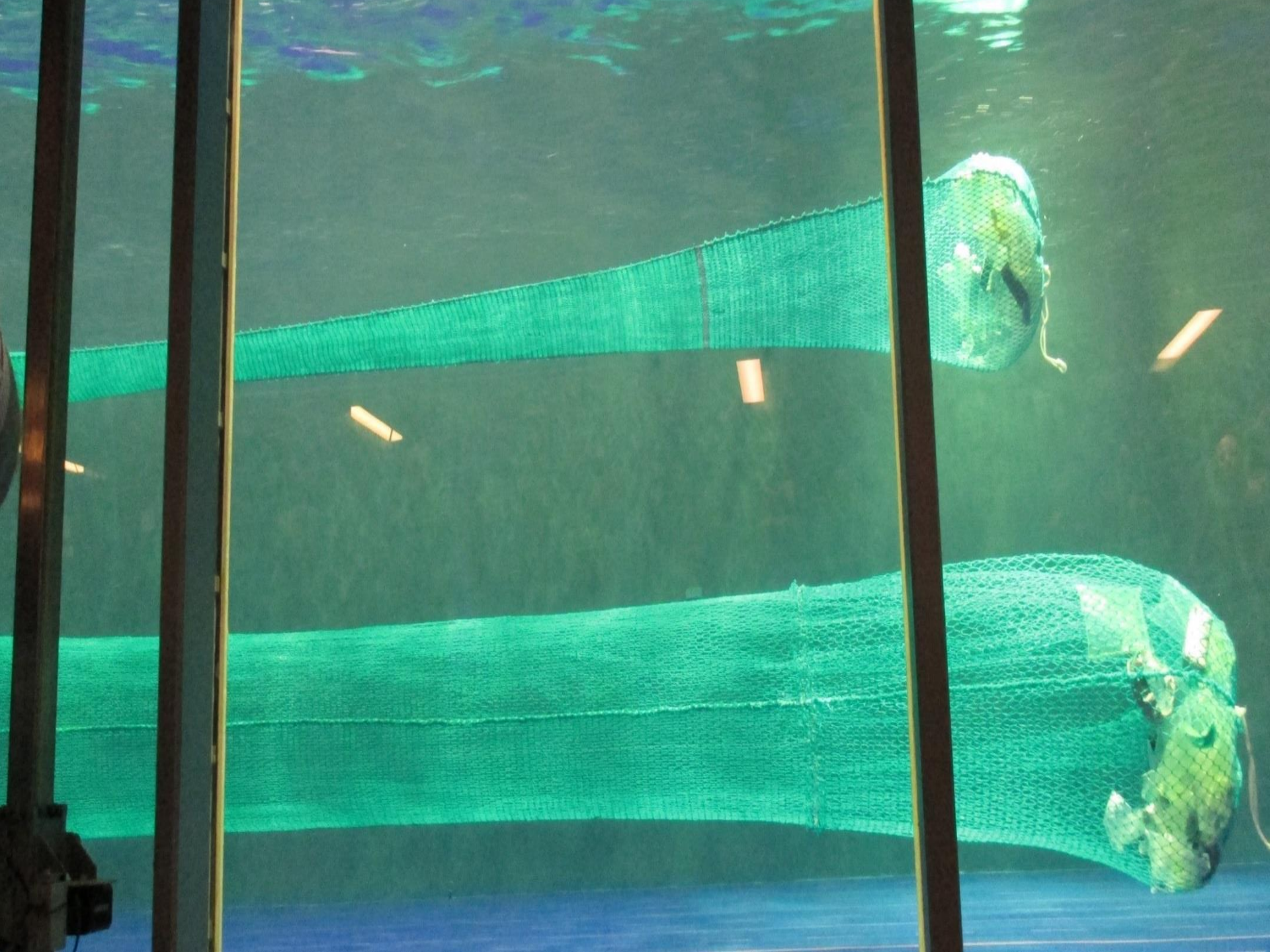




Scholvisserij

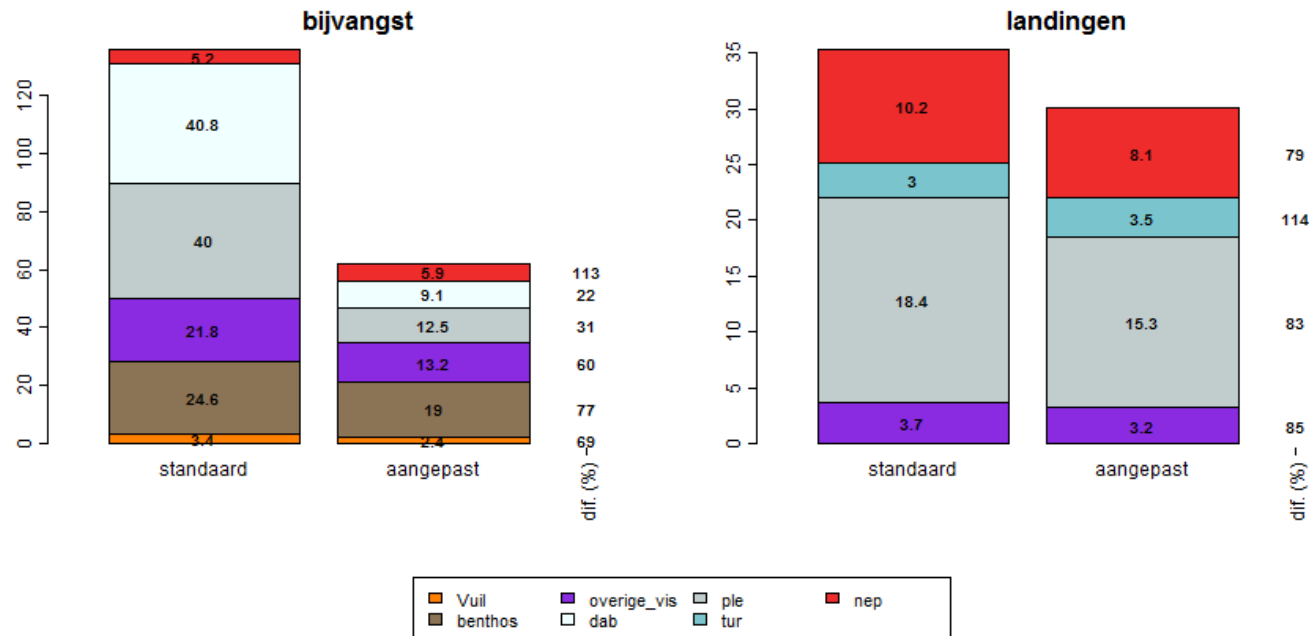
- Maaswijdte 100 mm+
- Tuigen: twinrig, outrig, boomkor en flyshoot
- Uitdaging: verlies geen tongschar
- Testen aan boord: OD 6 (twinrig) en GY 57 (twinrig)
- Panelen bovenzijden, T90 en wijde(re) mazen





Sectorale en ketenintegrale aanpak langoustines (1)

Gemiddelde vangst samenstelling WR189_2015_w20



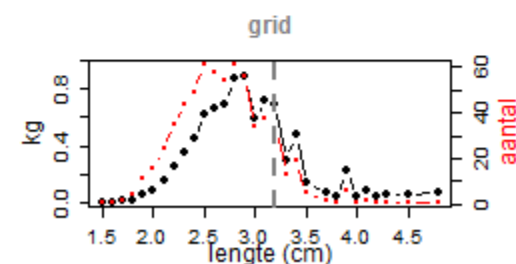
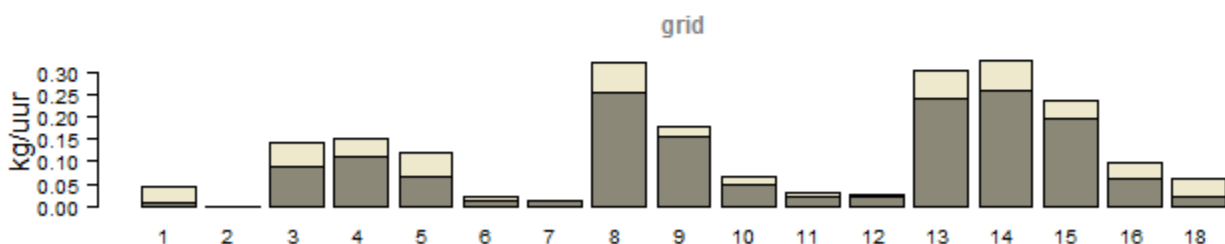
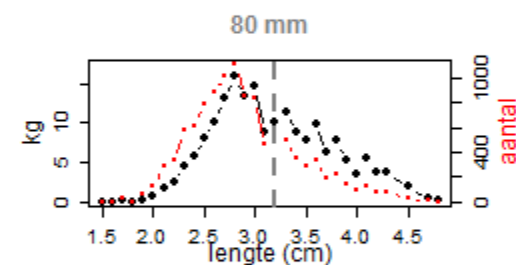
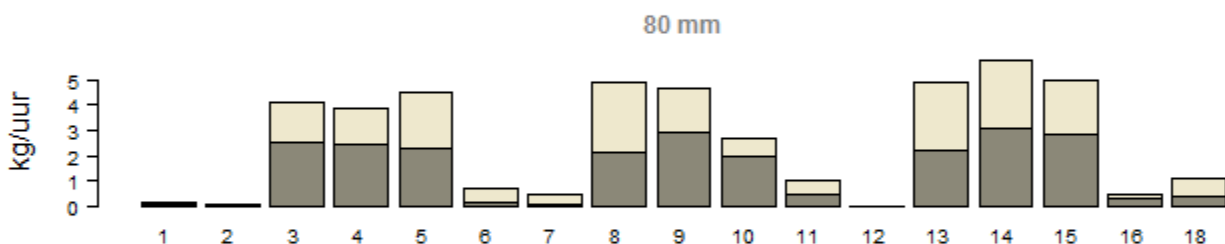
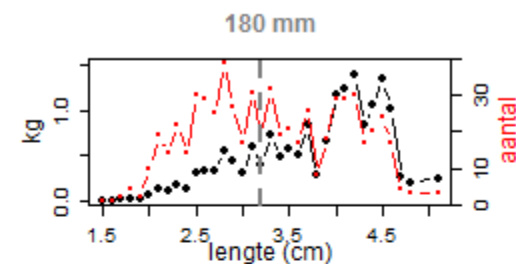
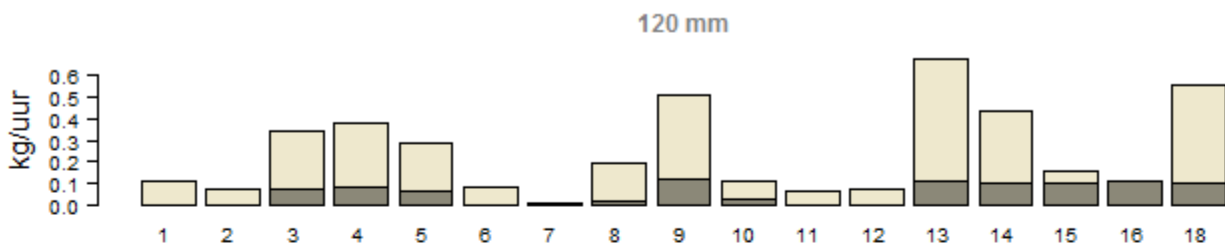
- WR 189
- Maatse vis
- 17% schol
- +14% tarbot
- 21% kreeft

- Bijvangst
- +13% kreeft
- 78% schar
- 69% schol
- 40% overige vis



Nephrops norvegicus

WR189_2015_w40

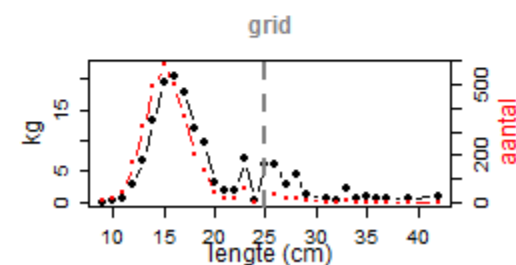
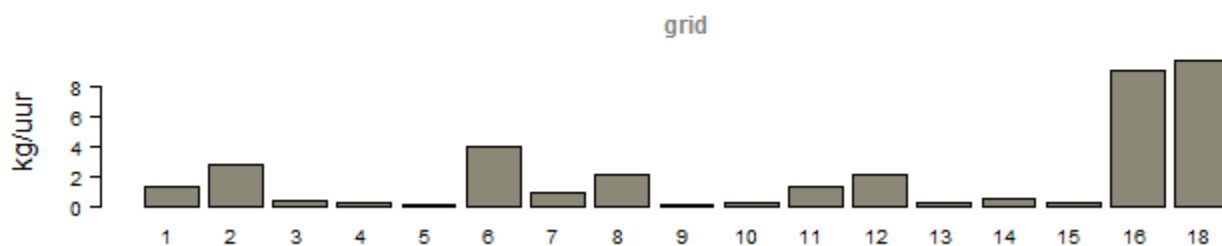
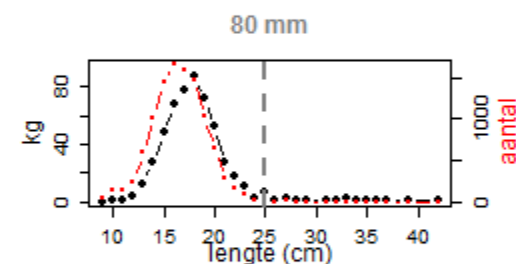
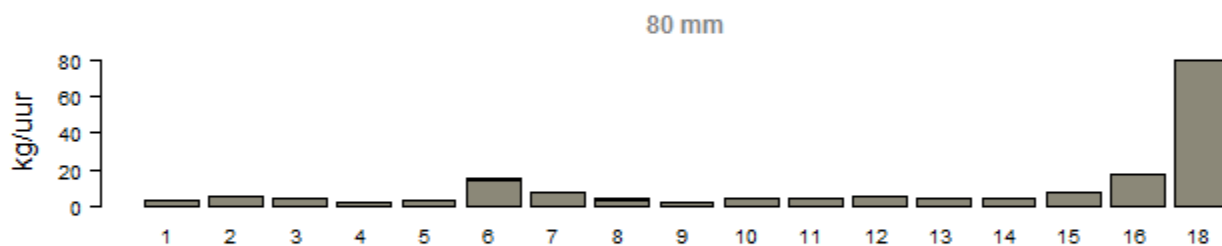
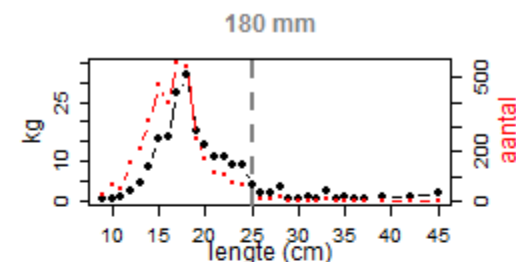
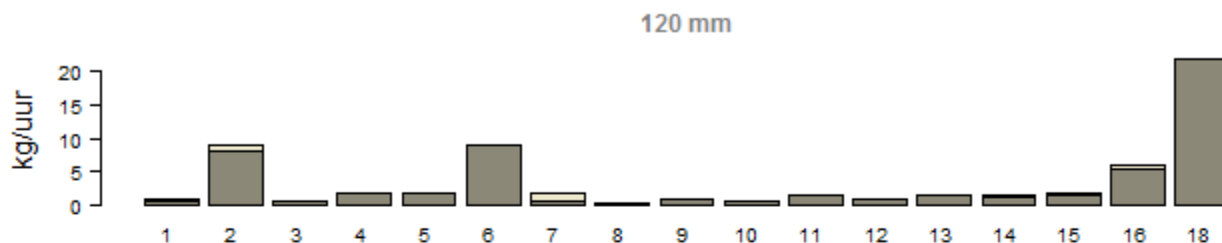


■ Ondermaats □ Bovenmaats



Limanda limanda

WR189_2015_w40



■ Ondermaats □ Bovenmaats







Sectorale en ketenintegrale aanpak langoustines (2)

- GO 58: μ 30 % verlies aan marktwaardige kreeft

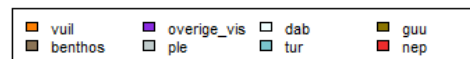
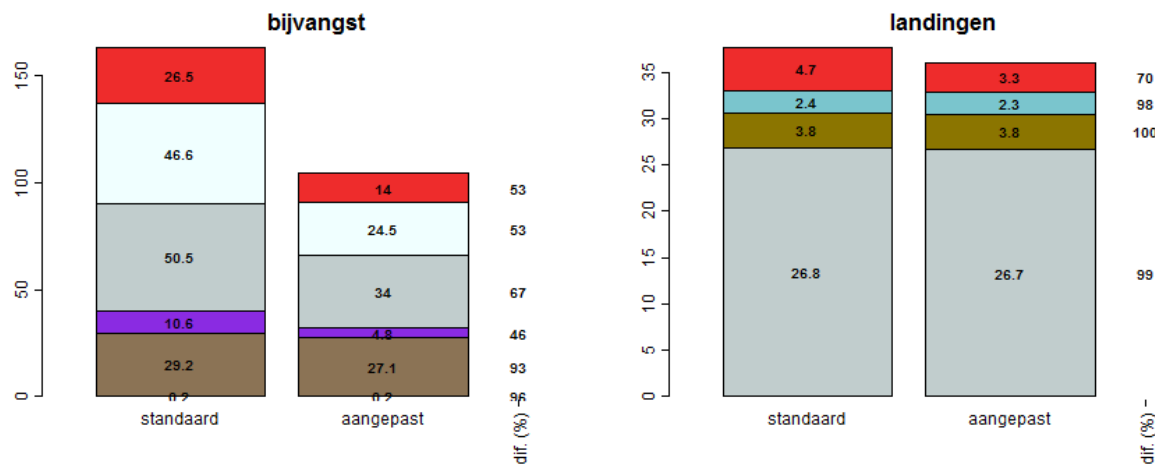
Maatse vis

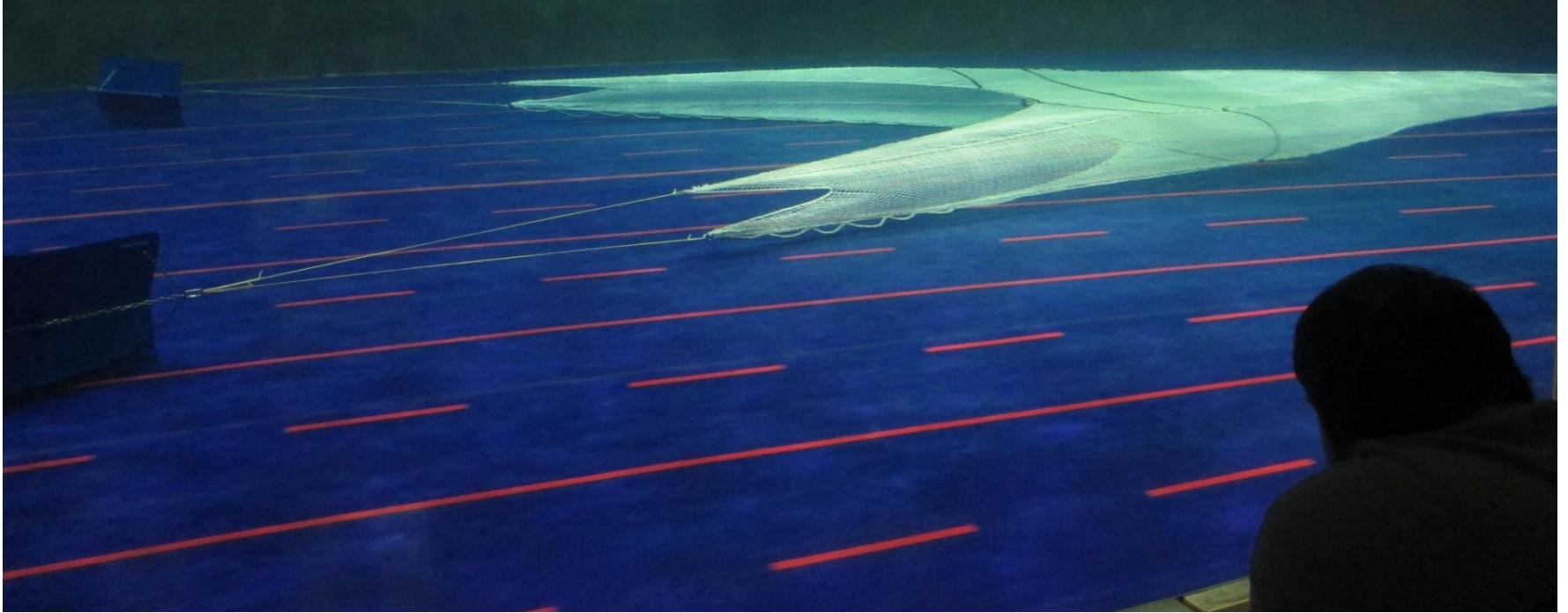
- 1% schol
- 2% tarbot
- 30% kreeft

Bijvangst

- 47% kreeft
- 47% schar
- 33% schol
- 54% overige vis

Gemiddelde vangst samenstelling GO58_2015_w41





Sectorale en ketenintegrale aanpak langoustines (3)



Coöperatieve
Visserij
Organisatie

- Grid: lijkt goed te werken in het lozen van kleine kreeft en zelfs van kleine vissen → wetenschappelijke analyse nog bezig





Europees Visserij Fonds: investering in duurzame visserij



Netinnovatie Nederlandse kottervloot



Coöperatieve Visserij Organisatie