

# STAR : ODDI

Logging Life Science

Fishing gear and effective catch handling

1 October 2013



# Structure of the talk

- Introduction
- Fish selector operation
- Results and future considerations
- Conclusion

Our intentions with Fish Selector are:

- Equipment that is pre-programmed to automatically sort fish underwater by certain size and specie.
- Unwanted fish are automatically bypassed and swim away.
- Reduced discard of fish?
- Counting/measuring of caught fish and bypassed fish.
- Helps skipper with deciding fishing grounds.
- Increase value of the catches.
- Improved use of quotas.

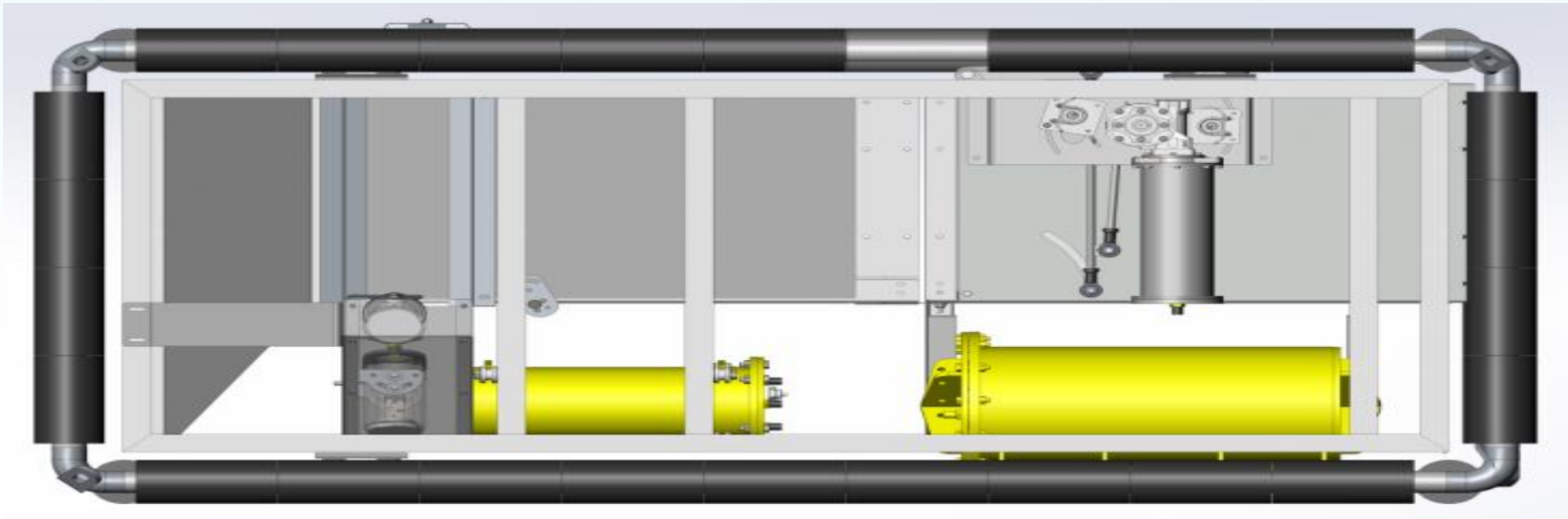
# Fish Selector operation 1/2:

Operation steps:

- Fish Selector is placed at the cod end of the trawl.
- Fish Selector scans the fish as it slides passed the scanner.  
Measuring the size of the fish (3D) and identifying the specie.
  - It is however not always necessary to identify the specie where size is the main parameter.

## Fish Selector operation 2/2:

- The equipment is around 2 meters in length, the main reason for the length is:
  - We need a length of 65 cm to scan in the fish.
  - It takes a short time for our computer to make a decision whether to throw out the fish; the time gap while decision is made equals approx. 5 cm movement of the fish in the Fish Selector.
  - After the fish has been scanned, the fish goes passed the release grid that's 60 cm of the length.
- For the scanning we have two video cameras.







## Results and future considerations 1/3

- The fish selector has been successfully tested and proven, nevertheless there is space for improvements.
- Dialogue with the vessel owners has been on going since the project started. It is difficult to evaluate a product on the drawing board, but after having made the first prototype and tested it, dialogue with the vessel owners changed, which lead to a modified approach of the Fish Selector, where:

# Results and future considerations 2/3

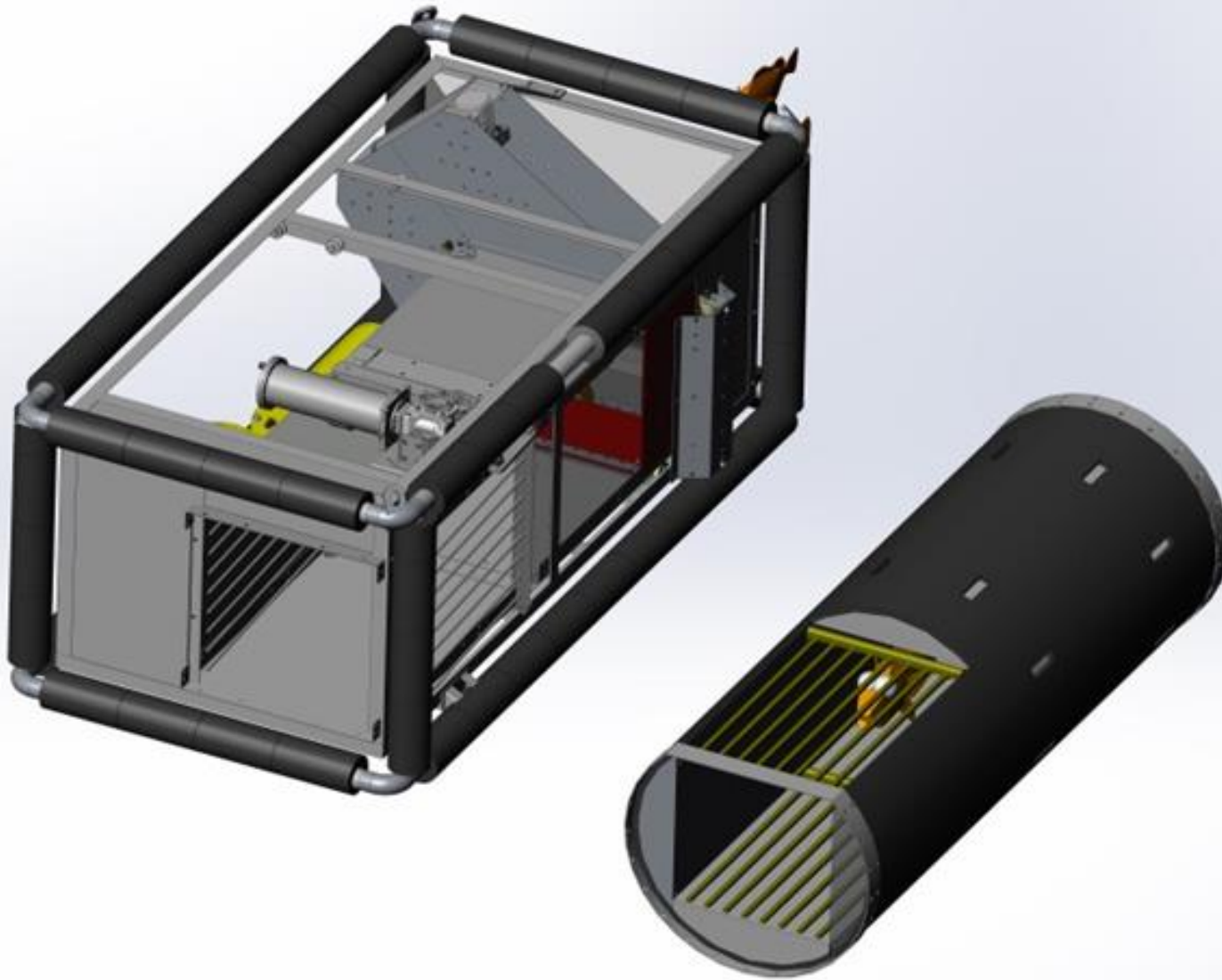
- We have suggested design modifications:
- Change the scanning technology, making it less space consuming and more robust.
- Four times volume reduction, going from  $3\text{m}^3$  to  $0,72\text{m}^3$ .
- Reduce the length of the device by at least 20 cm.
- Weight reduction going from less 300 Kg to less than 100 Kg.



## Results and future considerations 3/3

Modified version of the Fish Selector has received following comments from a vessel owner:

- The device is still much too heavy and bulky to be used on board a vessel.
- Vessel owners like to compare additional equipment on board to a trawl sonar, which is 10 times less volume consuming than the suggested modified Fish Selector, and three times lighter.
- Require better than than 90% of unwanted fish to be sorted out of the trawl, regardless of how the fish enters the cod end.
- Fishermen are still getting well paid for the undersized fish, so why change something that is working?
- Who is going to pay the cost of Fish Selector on board fishing vessels, who is the stakeholder?

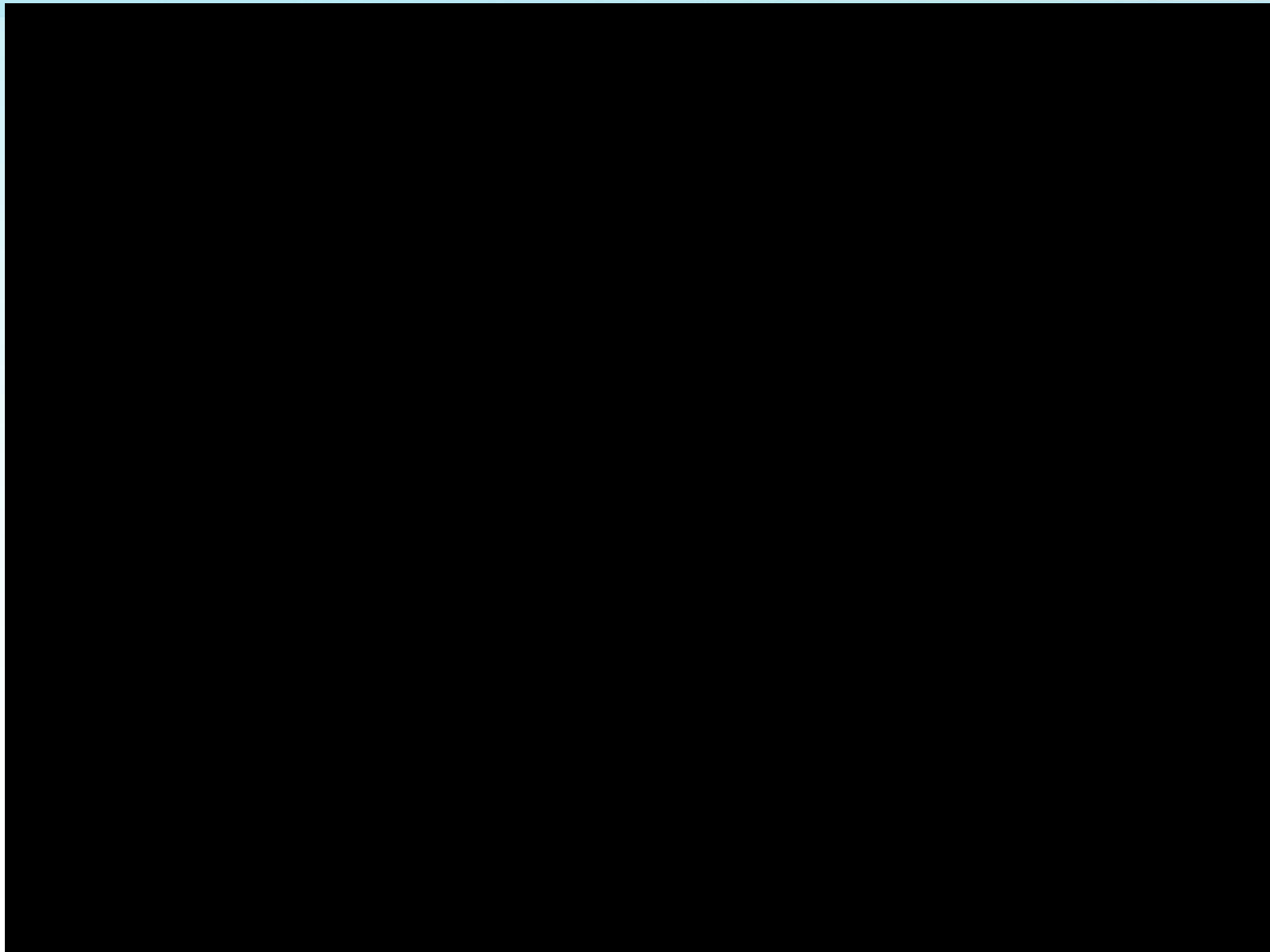


# Conclusion

- Fish Selector has been made and tested, proving that the technology for making such a device is available at Star-Oddi.

## **How can we bridge the gap:**

- We know the purpose of the device, but is it necessary, is it useful and who is going to pay, who is the stakeholder?
- If we can't prove there is a market, we won't make it.



# Questions can be directed to:

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