



Better
differentiated
products and services

SMARTCATCH

Smartcatch

The development of a novel remote stress sensing system to increase safety, efficiency and to reduce the negative environmental effects in fishing and mooring applications.

The need

Fisheries and aquaculture farms across Europe currently face many challenges including: Increasing competition from more efficient competitors in countries such as North America, Canada, New Zealand and Japan. Increasing land/water costs are forcing aquaculture nets to be placed further out at sea. Therefore, the nets' vulnerability to storm damage is higher. Damage through severe weather is the cause of 76% of the loss of fish stocks in aquaculture.

Damaged ropes or nets result in high costs for repair or replacements as well as causing the loss of significant amounts of fish. Current net inspections require a considerably high level of health and safety risk resulting in higher costs. Through introducing an effective rope stress system the condition of fishing nets will be able to be monitored regularly in an efficient manner. It is expected that through maintaining a good quality of rope, along with well conditioned fishing nets, the level of fish lost will be reduced considerably.

The solution

The Smartcatch project is currently developing a remote stress monitoring system that can significantly increase efficiency in fishing and aquaculture. Additional benefits will also include an extended life of the fishing equipment and mooring ropes. This is a step towards achieving the European Union's plans for the gradual transition to more sustainable fisheries and continued leadership in the maritime industry.

Currently, a visual inspection is used to check the integrity of the ropes. Smartcatch will significantly reduce, and hopefully eliminate the need for visual inspections and the state of the rope will be analyzed from a remote computer screen. This will reduce both the level of human error and the need for divers' health to be put at risk.

The benefits

- The cost of equipment maintenance is expected to be cut by up to 90%. This produces a significant saving to organisations currently operating in the EU fishing industry.
- Industry wide savings are expected to total €315 million per annum.
- The Smartcatch system can be easily fitted to pre-existing fishing equipment reducing the initial investment required.
- The requirement for expensive, often dangerous, diver inspections will be significantly reduced.
- Significantly increased efficiency for the end user of the technology. This will lead to an increase in fish stocks which in turn will result in enhanced profit levels.
- A return on investment period of two years.

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