

## The Flexigrid (aka The Fish Filter)

Kristian Zachariassen, Faroe Islands

Mr. Zachariassen developed a flexible sorting grid built out of tubes and ropes. Inside a trawl net, the grid sorts the targeted fish from the unwanted fish and allows unwanted fish to safely exit the net. Bycatch larger than the targeted species can swim out of an opening in front of the grid rather than being herded into the cod end and kept.

Many trawlers already insert filter grids into their trawl nets to stop non-target fish getting into the end of the net. However, these are not always effective at reducing bycatch and they also lower fishing efficiency because the water flow through the grid is reduced.

The grids are also often extremely heavy and cumbersome. Mr. Zachariassen made a flexible grid which consists of small plastic tubes set on ropes. Because of the grid's flexibility, water flows through the net differently, and fewer fish become entangled in the net in front of the grid. Trials show the grid is effective at cutting bycatch of cod and saith by 95%, while the catch of the target fish (blue-whiting) is only reduced by 1%.

Mr. Zachariassen's design is a technique, known from fish farming, developed by Johnson Seafarms Ltd in Shetland, who originally created the Flexi-panel to size-sort salmon and trout in fish-gages. Mr. Zachariassen and his colleagues at the Faroese Fisheries Laboratory and the trawl factory Vonin Ltd., together with the pelagic trawlers Naeraberg and Christian i Gropinum, re-developed this panel to the flexible panel, also called the Flexi-grid.



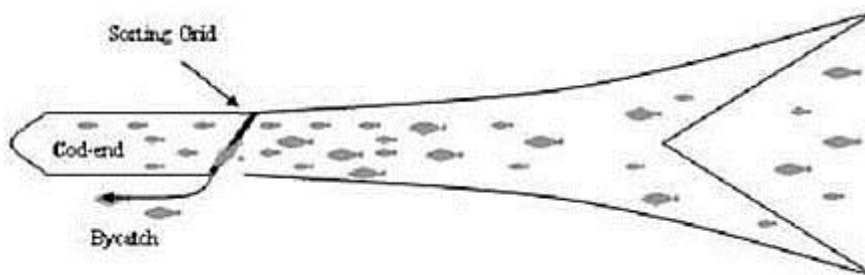
Flexi-grid by Kristian Zachariassen.

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A close-up view of the flexi-grid.

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A diagram showing how bycatch can escape through the flexi-grid in a trawl net.

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### *Non-target Fish Bycatch*

Oftentimes fishermen, especially in trawl fisheries, catch species of fish that they are not targeting. This unwanted catch is problematic for certain fish species that can not sustain high levels of mortality and for which fisheries sometimes have strict quotas. This unwanted catch is also a nuisance for the fishermen who don't want to waste net space and resources on fish they didn't want to catch.

### *The Winner*

Mr. Zachariassen is a former fisherman, and has spent last 10 years working at the Faroese Fishery Laboratory as a fishing technician. He started as a deckhand onboard longliners and sailed as mate and skipper on Faroese trawlers for 8 years until he joined the Faroese Fisheries Lab. His work focuses on selectivity devices and environmentally friendly fishing gear.