

Towards a better understanding of the adoption of new fishing technology by Belgian fishers

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In Western Europe, fish stocks are under pressure and as a consequence so are their associated fisheries. In addition, fishing, and particularly practices employing towed bottom contact gears, have a significant impact on benthic ecosystems (Løkkeborg, 2005). This is also a major concern for the mixed demersal fishery in the North Sea. In the Belgian fleet 77% of the landings is accounted for by beam trawlers (Tessens, 2013).

For these reasons, technical and management measures are being developed in an attempt to lower the impact of fishing. The choice of fishing technique can make a large difference in terms of impact on the ecosystem as well as in terms of efficiency (for e.g. fuel consumption). In addition, when considering a particular gear, there exists a broad series of possible measures to improve selectivity and reduce the number of unwanted species and undersized fish. These measures are often developed by the industry itself or in science-industry partnerships. Measures such as escape panels, lighter netting, replacement of the traditional beam with more hydrodynamic structures (e.g., *sumwing*), replacement of the trawl heads with rollers (e.g., *ecoroll beam*) have proven successful in reducing bycatch, fuel consumption or bottom impact (or a combination of these) (e.g., Depestele et al., 2007; Polet et al., 2010; Poos et al., 2013).

However, the diffusion of technical innovations in fisheries has been observed to be a slow process. As is the case in the agricultural sector, it can be assumed that the adoption of new technologies rarely happens on its own and adoption decisions are very likely to be influenced by changes in external factors (Wauters et al., 2005; D'Emden et al., 2006). Therefore, the focus of this study is to identify the factors associated with the decision to adopt and invest in new fishing technology. This study is a first attempt to investigate the drivers and attitudes behind the uptake of new fishing technologies by Belgian fishers.

Fifteen Belgian fishers were selected and invited for a semi-structured open interview in the period January-March 2016. Prior to the interviews, we listed a set of possible themes that may underlie fisher attitude and behaviour. Additional themes that come up frequently during the interviews will be recorded, as well as the perceived link between themes and mentioned associations. These will be described and divergent views will be used to challenge generalisations. The results are expected to indicate that besides profitability, a number of other drivers play a role in adoption behaviour and investment decisions (e.g., social relationships among fishers, external factors such as subsidies and fuel prices, pressure from the producer organisation or policy makers, etc.). Knowing the factors that hamper or facilitate the adoption of innovative techniques can be important for the implementation of management measures aiming for sustainable fisheries.

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