FACT SHEET

EU FISHERIES CONTROL COALITION

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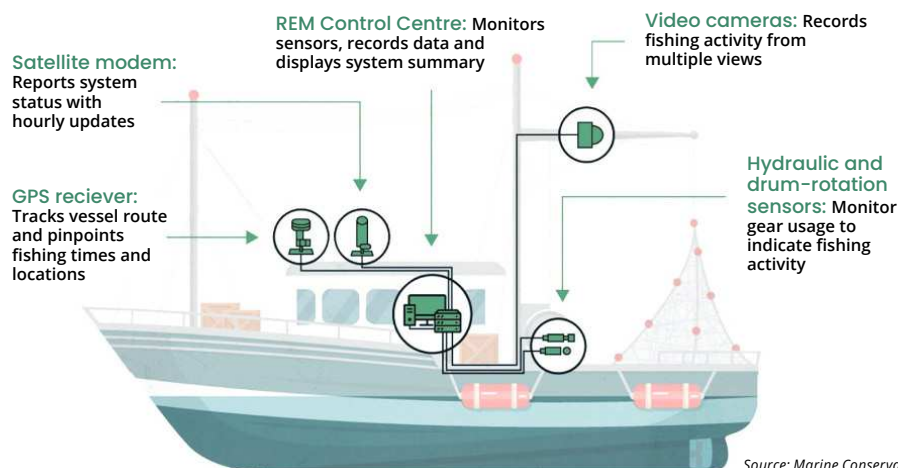
Remote Electronic Monitoring: How Cameras on EU Vessels Can Help to End Overfishing

To effectively manage our oceans and end overfishing, regulators must be able to collect high-quality data on the health of fish populations and ensure compliance with regulations. Managers have historically relied on a variety of methods to collect this data (e.g. logbooks, human observers, dockside monitoring, at-sea patrols), but these tools cover a limited proportion of fishing activities, are subject to bias or misreporting, and can be expensive and imprecise. As a result, most fishery managers lack the basic science information that they need to get the rules of the game right, and equally do not have the right compliance information to ensure that fishers play by those rules. To address this, the revised EU Fisheries Control Regulation must mandate the introduction of Remote Electronic Monitoring with cameras onboard all vessels over twelve metres in length, alongside an additional percentage of small-scale vessels that are at a high risk of breaching the rules of the Common Fisheries Policy (CFP).

Remote Electronic Monitoring – What it is, and why it matters.

Remote Electronic Monitoring with cameras (REM) does a good job of describing itself. A combination of cameras and sensors fitted onboard fishing vessels to collect large amounts of independent information on everything that is caught - including marine wildlife that might not be the main target.

REM Control Centre: Monitors sensors, records data and displays system summary

Video cameras: Records fishing activity from multiple views

Satellite modem: Reports system status with hourly updates

GPS reciever: Tracks vessel route and pinpoints fishing times and locations

Hydraulic and drum-rotation sensors: Monitor gear usage to indicate fishing activity

Source: Marine Conservation Society UK

Having access to up-to-date and reliable catch data allows managers to confirm that vessels are following the rules, but can also inform the delivery of stock assessments, catch quotas, and policy decisions that successfully encourage ecosystem recovery and sustainable practices within the EU fleet. Moreover, it creates opportunities for fishers to improve their practices and add value to their catch by showing supply chain partners that they operate legally and sustainably.

Five reasons to support REM.

The latest science tells us that reducing overfishing, using catches more efficiently, and increasing production from underfished resources could increase future catches by up to 40%.[1] By improving fisheries management through data collected by REM, we can support marine ecosystems to be resilient to the effects of climate change, while increasing long-term yields, profits and benefits for future generations of fishers. Put simply, the widespread adoption of REM can set us onto a path to a better future. Here are five reasons why:

1. Enhanced Data

A significant proportion of existing fisheries data is vulnerable to misrecording. Findings in Denmark indicate that fishers unintentionally fail to report up to 29% of porpoise bycatch,[2] whilst there is widespread acknowledgement that under-reporting occurs when fishers encounter low-quota (or 'choke') species.[3] Although placing human observers onboard boats has previously been promoted as a solution, a short and unevenly distributed workforce means that we could only ever hope to monitor 1-5% of fishing activity using such methods.[4] In contrast, REM systems do not rely on vessels having the capacity to host an observer, meaning that they can be installed on any type of vessel. Cameras are also able to function regardless of conditions at sea, so they do not suffer from 'observer effects' that distort data quality, such as being subject to bribery or intimidation, or needing to take breaks. This combination of scalability and accuracy means that REM can provide a clearer picture of what is being removed from the sea.
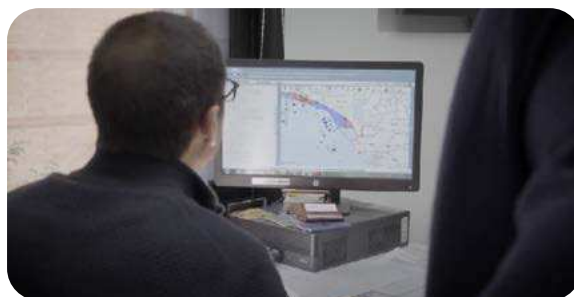
2. Improved Compliance

The fact that 80% of surveyed fishery inspectors have expressed positive views on REM is also indicative of its importance from a compliance perspective.[5] Over the last decade, numerous European pilot studies have shown that it can accurately verify both retained and discarded catch,[6] which has recently prompted the Danish Fisheries Agency to establish plans to roll out the EU's first legally mandated REM programme in the Kattegat Sea.[7] Uniquely, REM is able to provide verifiable video-based evidence of fishing activities, which can be used to successfully identify offenders beyond all reasonable doubt. This means that, with REM, managers would have the tools they need to not only prevent illegal discarding, but also to tackle IUU fishing more generally and ensure compliance with the CFP.

Having CCTV on-board will not violate fishers' EU privacy rights

3. Increased Profits

The catching sector is already coming under increasing pressure to guarantee sustainable production for its clients. In 2019, five of Sweden's largest food companies demanded stronger monitoring measures onboard fishing vessels, including cameras.[8] This has been followed by similar demands in Germany,[9] as well as export markets like the UK.[10] REM can provide responsible fishers with verifiable evidence that can be used to maintain access to supply chain partners and gain high-profile sustainability certifications. With consumers increasingly willing to pay extra for sustainable food, fishers could increase their profits while building trust, ensuring sustainability and safeguarding livelihoods.

4. Reduced Bycatch

Many thousands of cetaceans, as well as other sensitive species like seabirds, die each year as a result of fishing activities in EU waters. In winter 2019, figures reached approximately 11,300 for common dolphins in the Bay of Biscay alone.[11] However, although the Technical Measures Regulation requires that Member States "minimise and where possible eliminate" bycatch altogether,[12] effective mitigation and enforcement measures have been limited by a combination of poor monitoring and inaccurate sampling.[13] Trials in Denmark[14] and the Netherlands[15] have already shown us that REM can solve this problem by providing managers with the high-quality data they need to identify bycatch hotspots precisely, investigate potential causes, and enforce applicable rules. In Denmark, REM was found to have a far superior bycatch detection rate (92%) compared to fisher-led observation (63%).[16]

5. Cost-Effective Monitoring

In 2011, Kindt-Larsen et al. found that REM systems could operate at up to a tenth of the cost of human observer programmes.[17] Since then, increased staff efficiencies and continuous technological developments have meant that the cost of camera systems has continued to decrease year-on-year, dropping by 22% between 2015 and 2017 alone.[18] To introduce REM on every single one of the EU's fishing boats over twelve metres in length would carry an annual cost of around €64m.[19] That's less than 1% of the revenue of Europe's fishing fleet,[20] and still does not account for the fact that hardware and installation costs will be covered by European Maritime and Fisheries Fund. For that, we get far more comprehensive coverage than traditional monitoring systems would provide, and at a much lower cost.

## How to make monitoring work for the EU fisheries control system.

The revision of the EU Fisheries Control Regulation (2018/0193(COD)) is a golden opportunity to create a management system that successfully promotes environmental sustainability, whilst furthering the economic viability of the fishing industry. After over 100 trials and 12 fully implemented programmes worldwide,[21] REM has demonstrated its unrivalled capacity to play a critical role in delivering such a system.

We therefore propose the following amendments:

1. **Article 13 – Remote Electronic Monitoring:** Mandate the introduction of REM onboard all vessels over twelve metres in length. Here, implementation should be phased in, starting with EU vessels identified as posing a 'high' or 'very high' risk of non-compliance with the rules of the CFP. This should then progress to those found to display a 'medium' risk, before finally extending to all remaining vessels operating over the length threshold. The risk-assessment should be conducted by the European Fisheries Control Agency. Furthermore, this mandate should extend to vessels under twelve metres that display a 'high' or 'very high' risk of non-compliance with the CFP.

2. **Article 25a – Extending the use of CCTV beyond the control of the landing obligation:** Whilst the footage collected by REM will be hugely valuable for monitoring and preventing illegal discarding practices, it is important to remember that cameras are more than a surveillance tool. We therefore recommend establishing three clear objectives for REM in Europe: (1) To verify the reliability of catch data, (2) to monitor the incidental catches of sensitive species, and (3) to ensure compliance with the rules of the CFP (including, but not limited to, the landing obligation). Again, these objectives should be accompanied by our proposals for Article 13.

Endnotes

1 C. Costello et al., 'The Future of Food from the Sea' (2019) Washington DC: World Resources Institute 7.

2 L. Kindt-Larsen et al., 'Observing Incidental Harbour Porpoise Bycatch by Remote Electronic Monitoring' (2012) Endangered Species Res 19, 80.

3 E. van Helmond et al., 'Electronic Monitoring in Fisheries: Lessons From Global Experiences and Future Opportunities' (2020) Fish and Fisheries 21(1), 163; Batsleer et al., 'High-Grading and Over-Quota Discarding in Mixed Fisheries' (2015); Ulrich et al., 'Reconciling Single-Species TACs in the North Sea Demersal Fisheries Using the Fcube Mixed-Fisheries Advice Framework' (2011).

4 E. van Helmond et al., 'Electronic Monitoring in Fisheries: Lessons from Global Experiences and Future Opportunities' (2020) Fish and Fisheries 21(1), 163.

5 K. Plet-Hansen et al., 'Remote Electronic Monitoring and the Landing Obligation - Some Insights into Fishers' and Fishery Inspectors' Opinions' (2017) Marine Policy 76, 101.

6 ICES Advice, 'Ecoregions in the Northeast Atlantic and Adjacent Seas' (2018) 1 <www.ices.dk/sites/pub/Publication Reports/Advice/2018/2018/byc.eu.pdf> accessed 18 December 2020.

7 Danish Fisheries Agency, 'Camera Project in the Kattegat' (2020) <https://fiskeristyrelsen.dk/erhvervsfiskeri/kameraprojekt-i-kattegat/> accessed 18 December 2020.

8 The Fisheries Secretariat, 'Swedish Food Industry Together with WWF Call for an End to Illegal Discarding' (2019) < https://www.fishsec.org/2019/03/15/swedish-food-industry-together-with-wwf-call-for-an-end-to-illegal-discarding/> accessed 18 December 2020.

9 The Fisheries Secretariat, 'Continued Discarding Worries German Retailers' (2018) < https://www.fishsec.org/2018/07/09/continued-discarding-worries-german-retailers/> accessed 18 December 2020.

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11 Pelagis Observatory Bilan de l'hiver 2018-2019 Captures accidentelles de petits cétacés en Atlantique.

12 Regulation (EU) 2019/1241 [2019] OJ L198,, art 3(2)(b).

13 ICES Advice, 'Ecoregions in the Northeast Atlantic and Adjacent Seas' (2019) 4 <www.ices.dk/sites/pub/Publication Reports/Advice/2019/2019/byc.eu.pdf> accessed 18 December 2020.

14 L. Kindt-Larsen et al., 'Observing Incidental Harbour Porpoise Bycatch by Remote Electronic Monitoring' (2012) Endangered Species Res 19.

15 M. Scheidat et al., 'Electronic Monitoring of Incidental Bycatch of Harbour Porpoise (Phocoena phocoena) in the Dutch Bottom Set Gillnet Fishery' (2018) Wageningen Marine Research.

16 L. Kindt-Larsen et al., 'Observing Incidental Harbour Porpoise Bycatch by Remote Electronic Monitoring' (2012) Endangered Species Res 19, 80.

17 L. Kindt-Larsen, E. Kirkegaard, J. Dalskov, 'Fully Documented Fishery: A Tool to Support a Catch Quota Management System' (2011) ICES Journal of Marine Science 68(8), 1609.

18 World Wildlife Fund, 'Remote Electronic Monitoring: Why Camera Technology is a Cost-Effective and Robust Solution to Improving UK Fisheries Management' (2017) WWF UK 6.

19 ibid; https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=fish_fleet_alt&lang=en.

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21 E. van Helmond et al., 'Electronic Monitoring in Fisheries: Lessons from Global Experiences and Future Opportunities' (2020) Fish and Fisheries 21(1), 167.
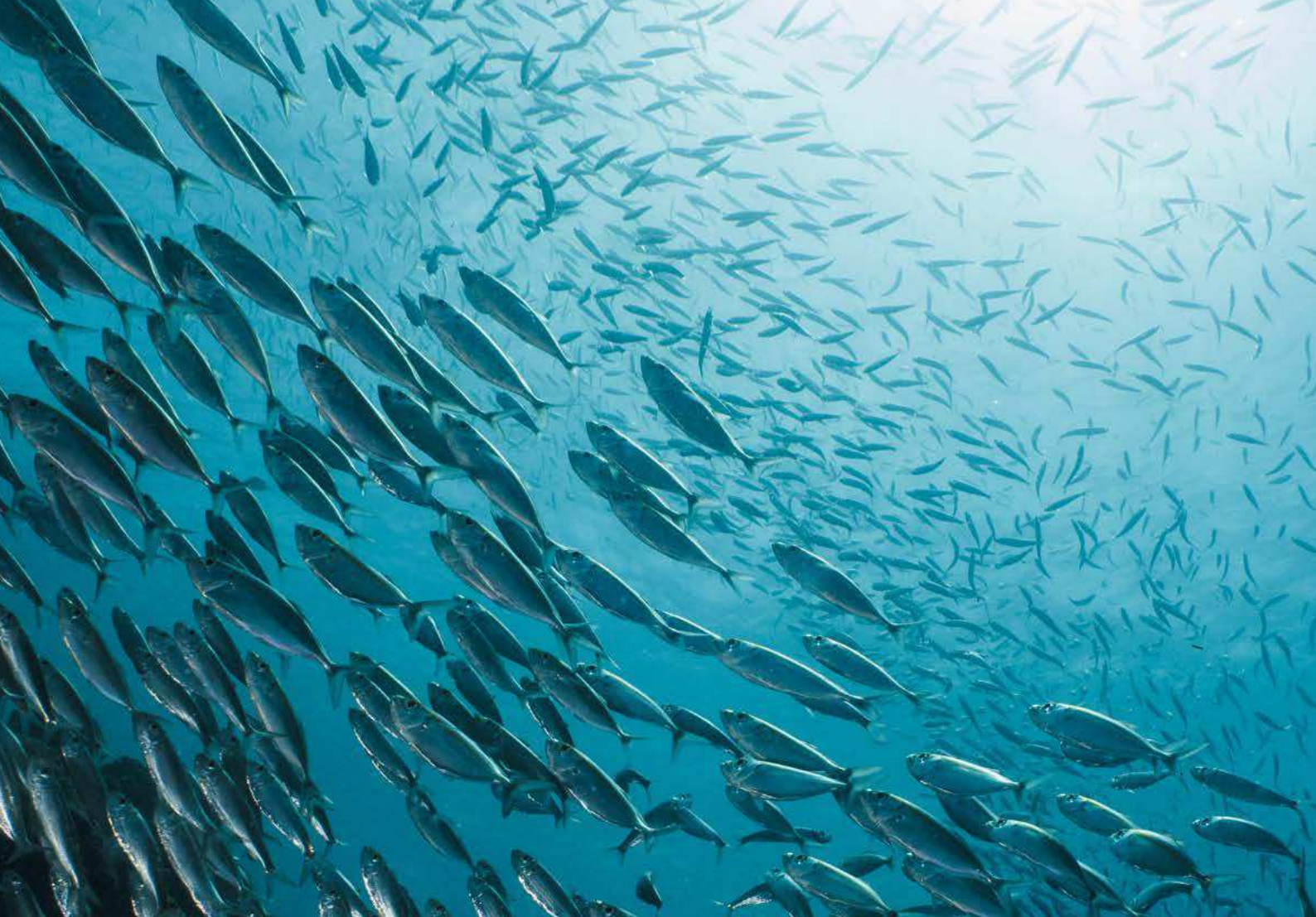
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About the Coalition

The EU Fisheries Control Coalition — The Environmental Justice Foundation, Oceana, Seas At Risk, The Nature Conservancy and WWF, together with Client Earth, The Fisheries Secretariat, Our Fish and Sciaena — is working to ensure that fisheries management in the EU safeguards ocean health and marine life for generations to come. A robust Control Regulation is essential for sustainable fisheries. It will ensure that fisheries activities are fully documented and will bring transparency to our seafood supply chains.

For more information, please visit http://www.transparentfisheries.org