



Integrated Electronic Monitoring and Reporting System (IEMRS)

Ministry for Primary Industries
New Zealand

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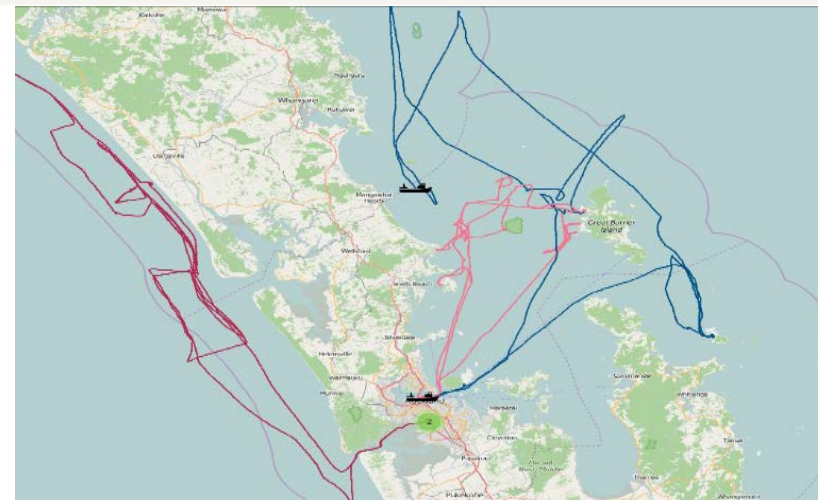
Growing and Protecting New Zealand



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Key Drivers for IEMRS

- Changed operating environment demands increased levels of fisheries information to enhance management outputs (sustainability, social licence, traceability & market access demands)
- Discarding & waste leads to cautionary approach to TACC setting
- Lost abundance & growth opportunities
- Unstable & rigid legacy system
- Inefficient processes
- Unsustainable cost structure for current monitoring system



New Zealand's IEMRS Solution

Catch Effort

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On-vessel
cameras

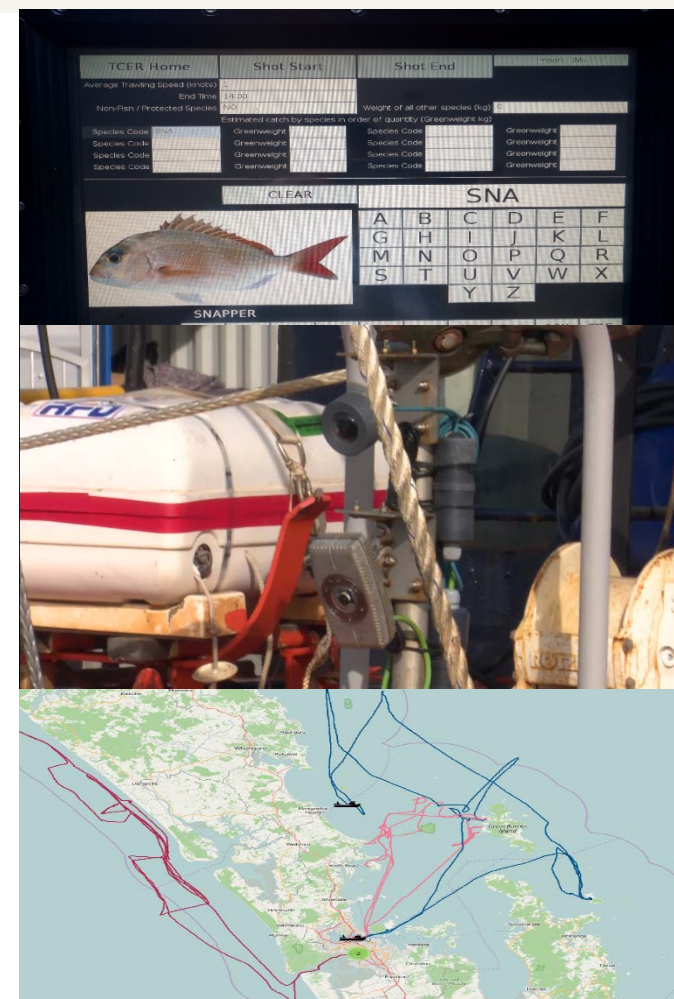
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Monitored GPS
(VMS)

Replace paper-based catch & effort returns with real-time catch reporting completed while vessels are on the water.

Use video cameras to enable on-vessel monitoring and data gathering across the commercial fleet.

Use monitored GPS systems to provide detailed geospatial information about individual vessels and the whole fleet



Change Impact

- Electronic monitoring costs are around 40% less than human observers.
- At-sea observers still required for scientific sampling and auditing but reduced observer deployment savings per annum are estimated at \$2.5m.
- Current management of paper-based reporting costs \$3.5m per annum. Ongoing savings around 50% per annum are estimated.
- Compliance investigative costs will be reduced, and actions streamlined with consequential savings across the system, e.g. prosecutions and judicial processes.
- Research needs will be better identified, and spending managed, given better baseline information.
- Provide accurate and verifiable fisheries data to enhance fisheries management outcomes

IEMRS Benefits

- Improved and protected market access and market opportunities
 - Increased trust and confidence in verification systems and sustainability of management approach; potential for independent verification of system
 - Enables use of sustainability marks for competitive advantage
- More sustainable management of the fisheries resource
 - More accurate basis for fish stock assessments and determining optimal TAC settings
 - Better understanding of protected species interactions with fishing
 - Easier to detect non-compliance, discarding and slippage disincentivised and reduced
- Improved Social Licence
- Less economic loss from wasted resource; economic value maximised within sustainable limits-benefits NZ and Industry

IEMRS Benefits cont.....

More efficient, flexible and cost effective management system

Saves administrative time and cost for MPI, industry and fishers (removing data entry, rework, manual reporting)

More timely & accurate fisheries management processes and decisions

Improved flexibility to respond to new demands and changing business models

Lower cost model that provides increased level of assurance

New, value-adding capabilities

Operators enabled to monitor their own fleet (spatial management) and access real-time on-board catch data

Verifiable information enables shift in science research from low value/low volume stocks to high value/high volume stocks, to inform optimal TAC settings

Potential to support development of new science tools

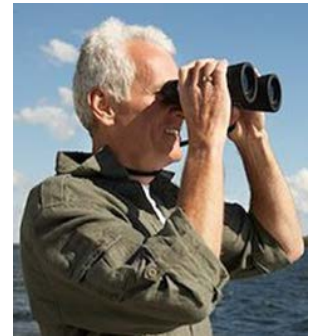
Enhanced ability to map catch and market opportunities with precision

Opportunities to develop more fine-tuned regulatory approaches that work to improve the regime overall

New opportunities for the use of sustainability branding e.g. Smartmark, MSC

Real world examples of IEMRS benefits

- Increased access to premium markets through third party verification
- Provides traceability opportunities
- Improved resource utilisation through timely information
- Knowledge of low information stocks significantly improved
- Robust information on discarding/waste available for first time ever
- Prevents wastage, more robust TACC setting through better information
- Better information of environmental effects of fishing & protected species interactions
- Attains social licence and credibility of fisheries management system
- Industry and government management significantly enhanced
- Industry able to link catch with market demands real time





Questions