

Beyond Monitoring: Unlocking the full potential of EM

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Science Based Management

- 600 fisheries with rich data streams
- 200 catch shares/cooperative fisheries

How do we do better?

EM: Key Component of Monitoring Programs

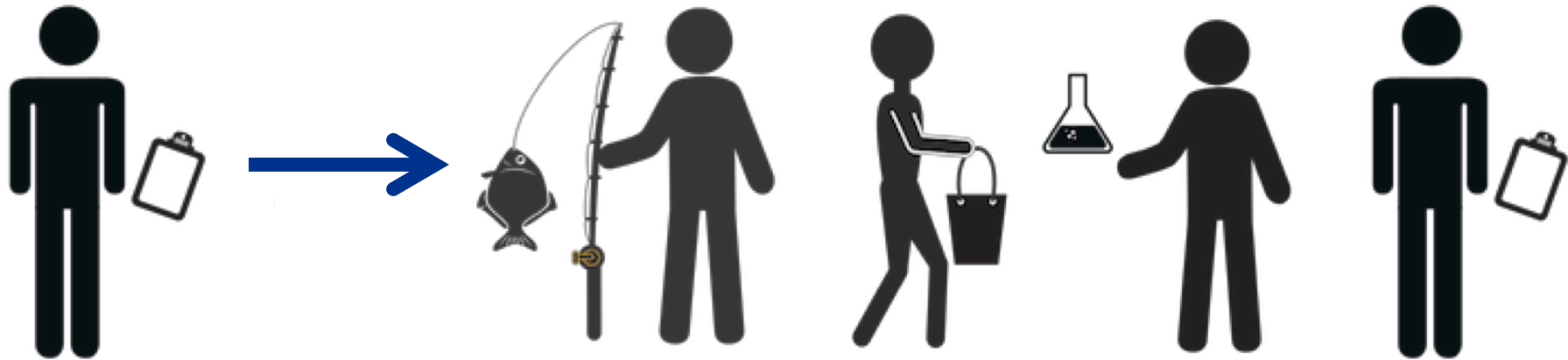
EM programs are **not scaling fast enough**

- At current rates, only **1-2% of all large vessels** with EM in 10 years
- In the best case, 12% of large vessels (>12m)

WHY?



EM Can offer MORE



We are riding a tech wave.



Benefit:

Reduce Costs and enable uptake of EM

Technological Change reduces costs

- **AI for reducing data review costs**

- Better identification of reviewable events
- Eventually, automatic review



- **Wireless communications**

- Currently most EM involves manual removal of hard drives
- Costs of wireless communications are coming down



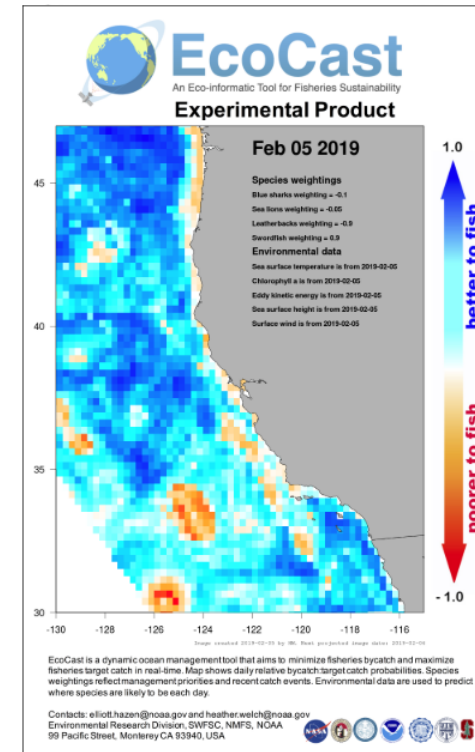
Benefit: Smarter Fishing

- **Ecocast:** better prediction of sensitive species
 - Improved with real-time analysis and communication
- Real time bycatch **hotspot mapping.**
- Real time bycatch **avoidance.**

AI and wireless communications:

- **Minimal requirements** for fishermen input

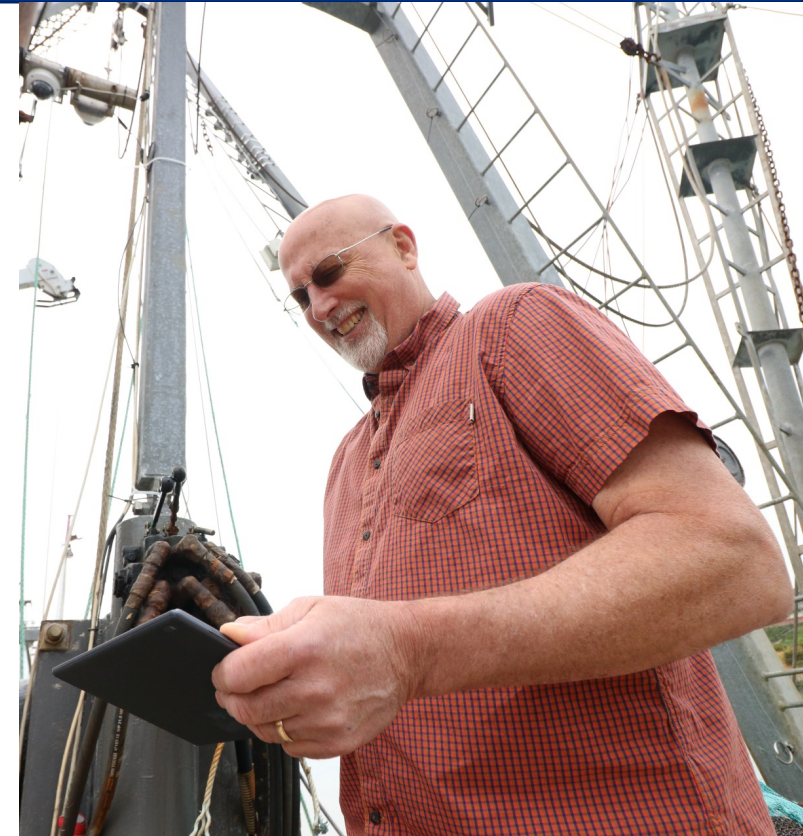
Enables **longer seasons** and **better revenue**



Benefit: Improved Science

- Fishing vessels: ‘**platforms of opportunity**’ for science
- Oceanographic sensors are getting cheaper
- Data integrated at a finer resolution and broader scale than ever before

Lead to **better quota setting**, which lead to **higher sustainable catches**



Benefit:

Improved traceability

- **Major challenge:** linking product starting at vessel (time/date caught, area, by whom)
- Product identifiers: **QR codes**, etc.
- **Integrate product tracking** with EM system
- Bluetooth enabled temperature sensors
- NFC
- EM video clips to consumers



Benefit:

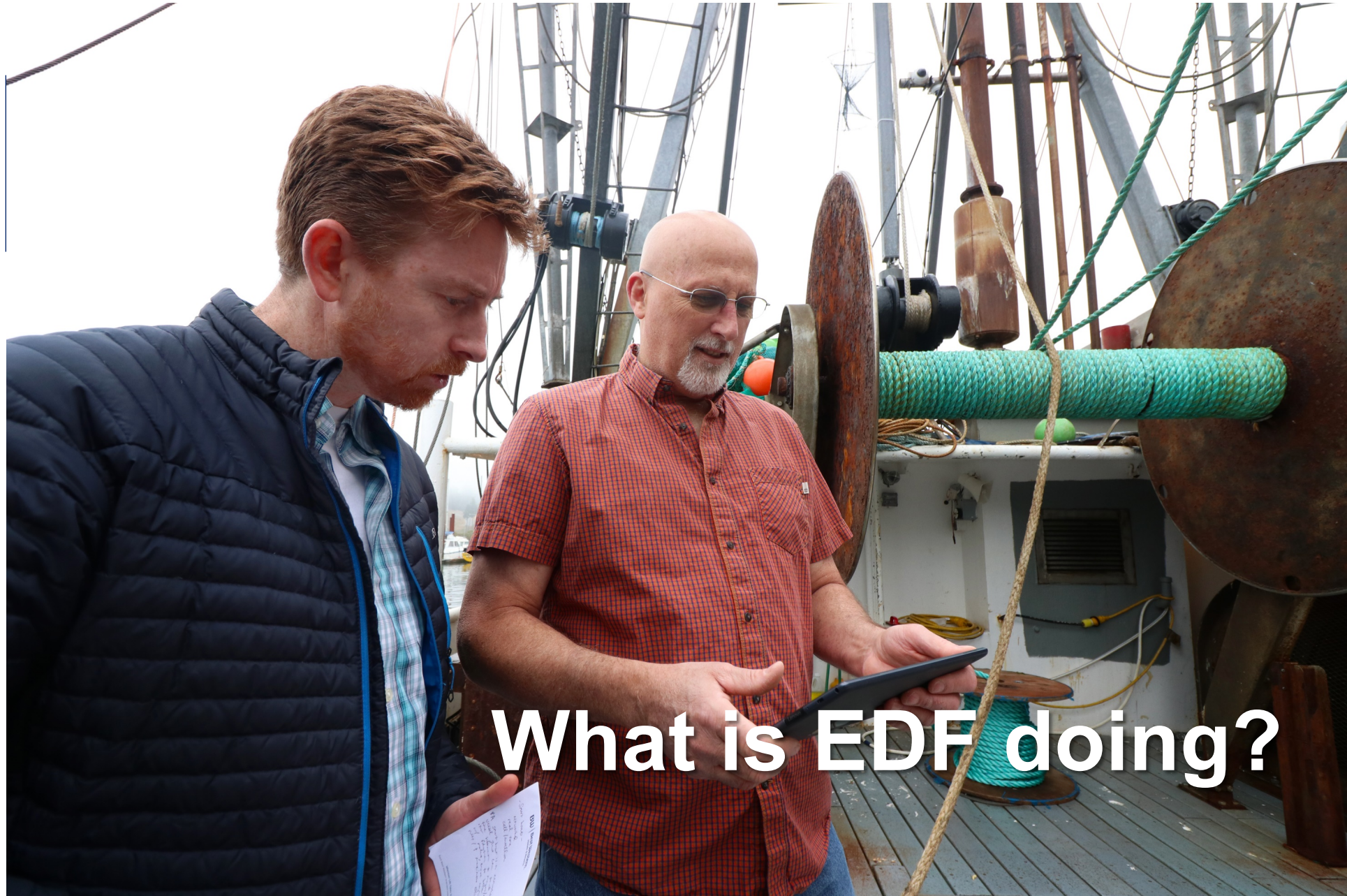
New markets for data

Public data can generate **>\$3 trillion per year**

- More efficient **route plotting** and real time decision making for shipping companies
- Better prediction of events that affect **aquaculture operations** (low pH water, SST)

The Blue Economy is based on information.





What is EDF doing?

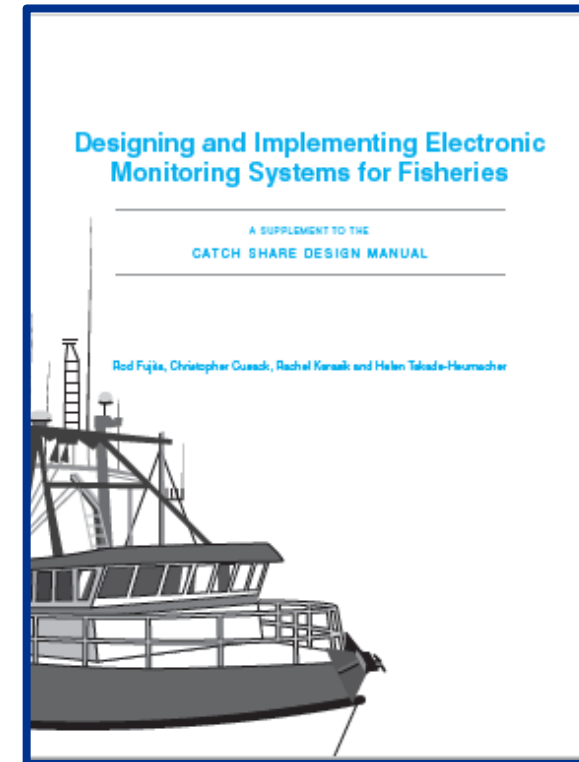


Practical Pilots

Building demand for Governance

- Support **management institutions** and **regulatory process**
- Build **knowledge capacity**
- Demonstrate direct link between **sound management** and **better outcomes**

Make EM program design easier to understand and implement



Thank you!

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<http://fisherysolutionscenter.edf.org/resources/manuals-and-guides>

