SNAPGROUP™

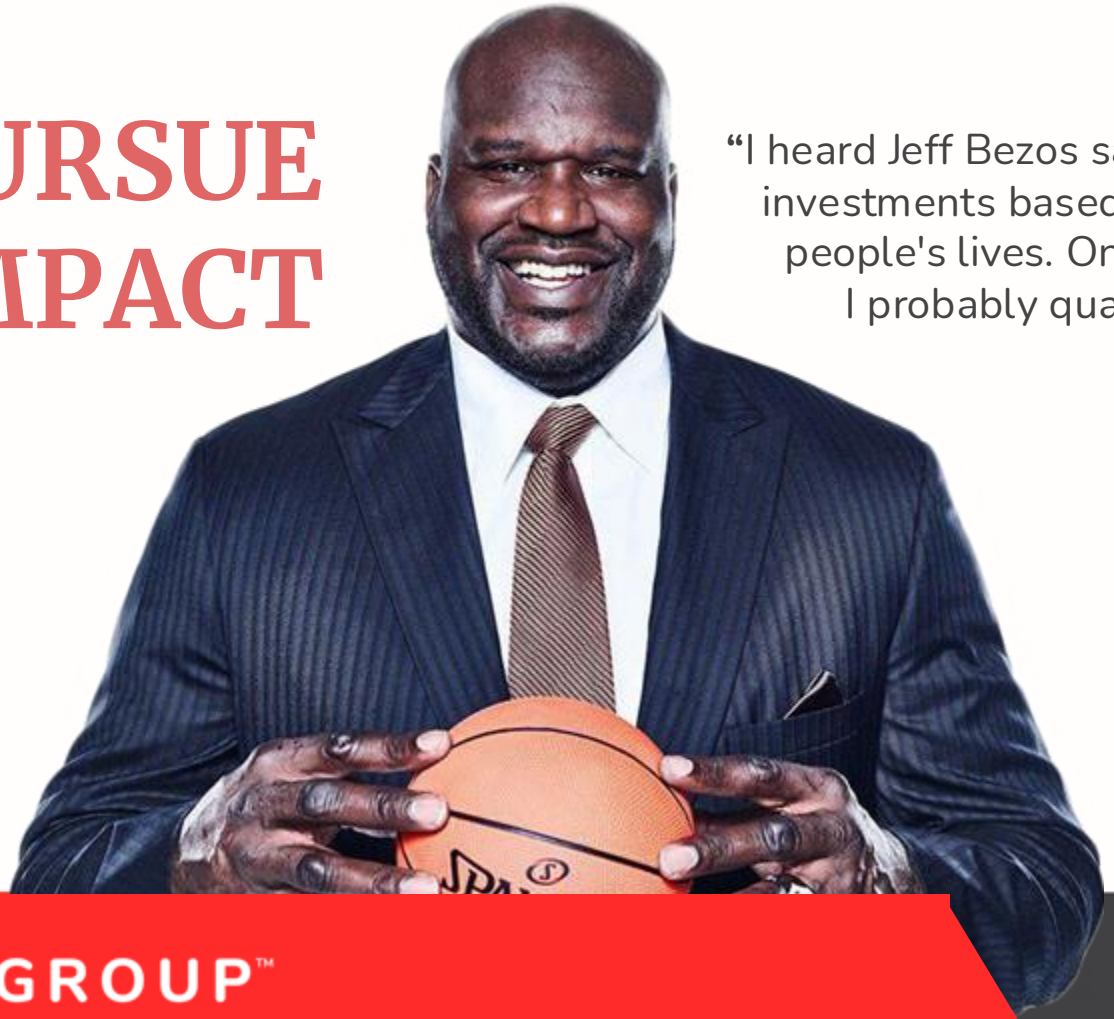
Capture Innovation, Inspire Transformation

Live capture technology and ai in fisheries

"Running a commercially driven impact business is **challenging**.. It requires **focus**sed conviction, **propulsive partners** and most importantly **patient perseverance**."

-Chris Rodley, Snap Group Founder

PURSUE IMPACT



"I heard Jeff Bezos say one time, he makes his investments based on if it's going to change people's lives. Once I started that strategy, I probably quadrupled what I'm worth."

- **Shaquille O'Neal**

Small beginnings… focus…

- building on good ancestors
- Nelson born and bred
- taught at Nelson College
- co-founders; the Rodley boys
- launched CES las vegas


teem.fish
MONITORING
Local focus. Global impact.
Recognized as EM leader
After 2 years holds ~10% of global market
Trusted by industry
Empowering local fisheries with world-class innovation
www.teem.fish

The Problem
We are addressing

- Fisheries management is extremely difficult! Currently this is predominantly through on board human observers monitoring catch, by-catch and on-board process sometimes only 12% of trips.
- Human observers can cost a lot making management cost prohibitive in the majority of fisheries. When an observer is on board in NZ there is a 60% increase in reported events.
- The World Bank estimates 57% of fish stocks are fully exploited and another 30% are over-exploited, depleted, or recovering.
- If stocks in these fisheries can be rebuilt, then fishery production could increase by 16.5 million tonnes or by USD$32 billion annually.
- Unless we address this issue, we risk the future of the fishing industry - relied on by approximately 3 billion people as their primary source of protein.

The Solution
We are providing

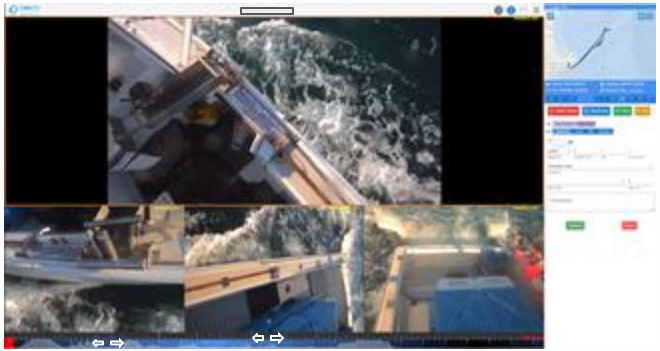
- Using cameras installed on vessels, ai, data collection and review tools we replace human observers and provide a world class fisheries management solution that ensures incontestable data on 100% of trips.

- We increase data access, integrity and can scale to hundreds of thousands of vessels in fisheries globally including opening new markets in fisheries that currently have no formal observation.

- TRANSPARENCY: Fishermen can now prove they operate with integrity.
  TRACEABILITY: Data can be used to trace fish from sea to plate.
  COST EFFECTIVE: Camera review costs much less per trip.
  BUSINESS PLANNING: Business intelligence improving vessel and company efficiency and marketing.
  ENFORCEMENT: Evidence of a vessel's compliance with their fishery's regulated 'Conditions of License', reduction of Illegal, Unregulated and Unreported fishing vessels globally - slavery, smuggling and theft.
  FISHERIES MANAGEMENT: Gather fishing effort and stock assessment data for better decision making.

- Our technology let's the fisher just fish by reducing compliance burden and cost.

Technology: Hardware , Software and IP



CAPTURE

Hardware:
Cameras, ai hardware, remote tracking and Satellite communications

ANALYZE

Software:
Cloud based SaaS review tool, allows govt or industry the ability to review, annotate and train for ai machine learning

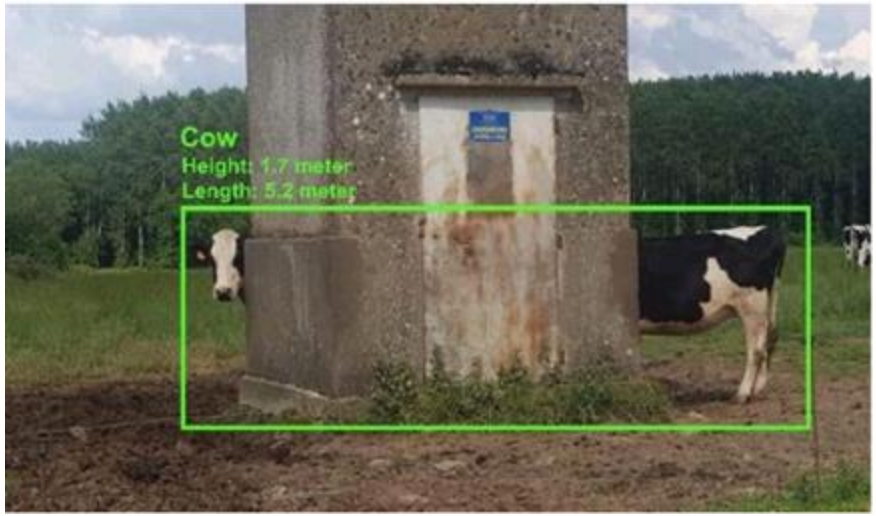
CONNECT

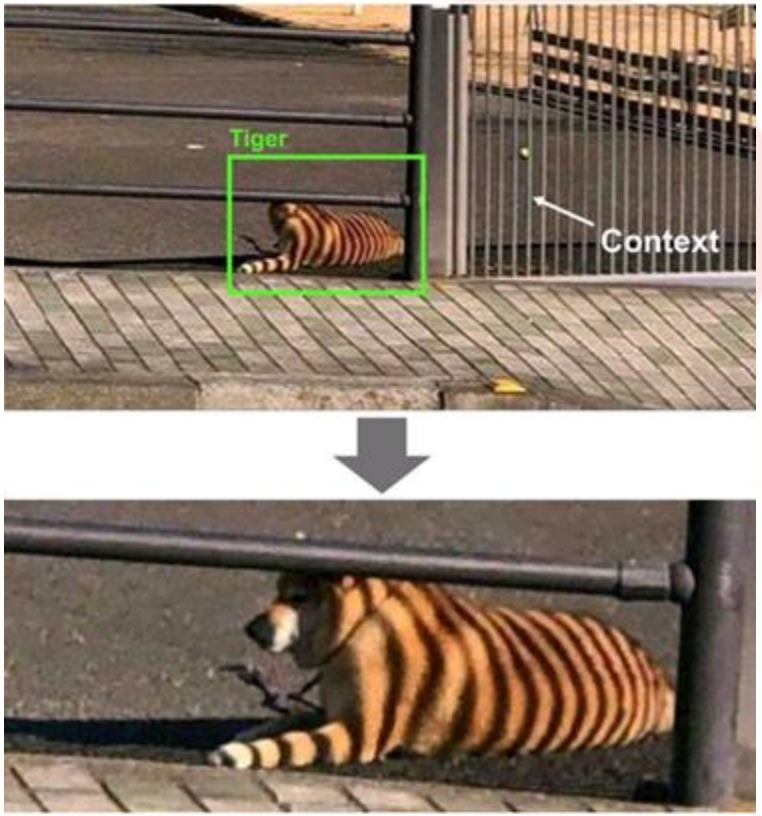
AI:
Analysed data and API submits data to wider ecosystems for full automation and BI reporting

Problems with edge compute AI

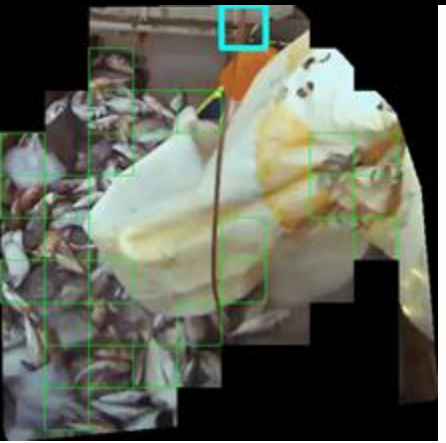
Data requirements: Requires large datasets, it is very time consuming to annotate the data. We cannot get large datasets of some things (e.g., black petrel).
Computational complexity: Training deep learning models requires computers with lots of GPU memory/processing.
Explainability: It is difficult or impossible to understand what the models are doing. AI needs to be explainable in many cases (e.g., is discarding this fish a criminal act).
Accuracy: Deep learning isn't perfect. In some cases 50% accuracy is great, in other cases 99% accuracy is not good enough.

Problems with edge AI: Teaching context





Fisheries AI examples



Enter your prompts, comma separated...

A photo of green shell mussels a species of shellfish, A photo of scallops a species of shellfish, A photo of a snapper a species of fish, A photo of a tuna a species of fish, A photo with no fish

Prompt #2 - 2024-04-18 14:12:19 - 0% 98% 0% 0% 0%

Prompt #4 - 2024-04-18 10:44:08 - 0% 4% 2% 80% 11%

Prompt #4 - 2024-04-17 14:40:15 - 0% 0% 3% 84% 11%

Prompt #4 - 2024-04-16 16:52:00 - 0% 0% 4% 91% 4%

Prompt #1 - 2024-04-16 16:51:34 - 93% 0% 0% 2% 2%

Prompt #2 - 2024-04-16 16:51:10 - 14% 84% 0% 0% 0%

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Prompt #4 - 2024-04-16 14:40:45 - 0% 0% 2% 84% 12%

Prompt #4 - 2024-04-15 16:44:44 - 0% 0% 10% 82% 6%

Prompt #4 - 2024-04-12 16:00:57 - 0% 0% 3% 85% 11%

Prompt #4 - 2024-04-12 16:00:25 - 0% 0% 5% 83% 10%

Prompt #4 - 2024-04-12 15:58:12 - 1% 7% 2% 84% 4%

Q&A / demo


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CORE™


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