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The Catch Corporation



# BIG data and why Catch Technology Limited

# What represents Big Data

- Quick internet search on how many tuna are left in the World revealed on a Pew Trust report that there were in 2014
- 4,990,000 tons of tuna caught with a value of in excess of \$33.3 billion in terms of retail value to the public globally
- Indonesia the top tuna catching nation in the World catches in the region of 620,000,000 kilos of tuna per year



At average 80 kilos per fish  
that's 7,750,000 fish a year  
in just Indonesia

To the processor that's roughly  
31,000,000 loins or  
Approximately 310,000,000  
portions





Catch Compliance.Com  
Where we thought the future of our business lay



# SIMP

## Sales Import Monitoring Programme

- Requires an importer to track and record that consignment back to the fish captain , the dock the boat, the licence etc,etc
- The transport companies and all details of who transported it incl vehicle details etc, etc
- Temperatures
- Containers
- Processors
- Skippers
- Transport companies
- Batches
- Fish ID
- Licenses
- Total landed weight
- traceability
- Production Codes
- This truly is BIG DATA





We built it . Its now just part  
of our offering

# The 4<sup>th</sup> Wave

We asked our customers what they really wanted

They wanted to know where most of their fish came from  
They wanted to know the habitats  
They wanted trends  
Predictive Pricing

## They wanted

Machine Learning  
Data Mining  
Trending

They just didn't know what to call it





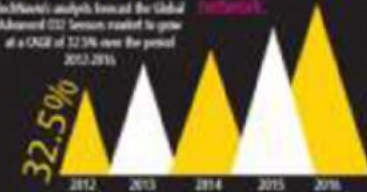
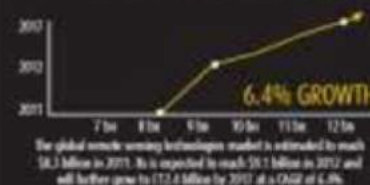


They needed BIG DATA

We needed to collect big data  
The how was a journey

The market  
itself is not  
just BIG  
It's  
ENORMOUS

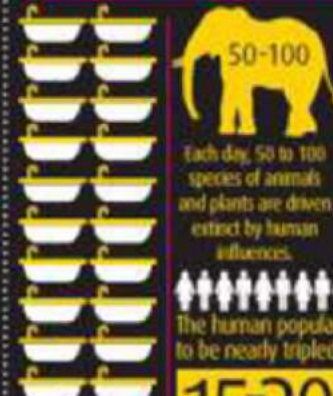
## Monitoring and Tracking



## Sustainability

**\$70 Billion**

Total spend on sustainable business programmes by \$1bn revenues firms in Australia, Canada, the UK and the US markets alone in 2015.



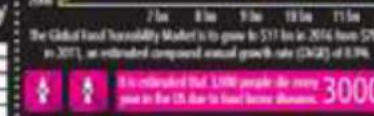
## Top 10 Fishing Nations



**880,000**  
fishing vessels in worldwide fleet



**38 million**  
commercial fisheries & fish farmers globally



**86%**  
of shortfalls say the presence of local food - food they believe is healthier, safer and more sustainably sourced is important to them when





How does the fish industry record this data



- What does it look like in reality







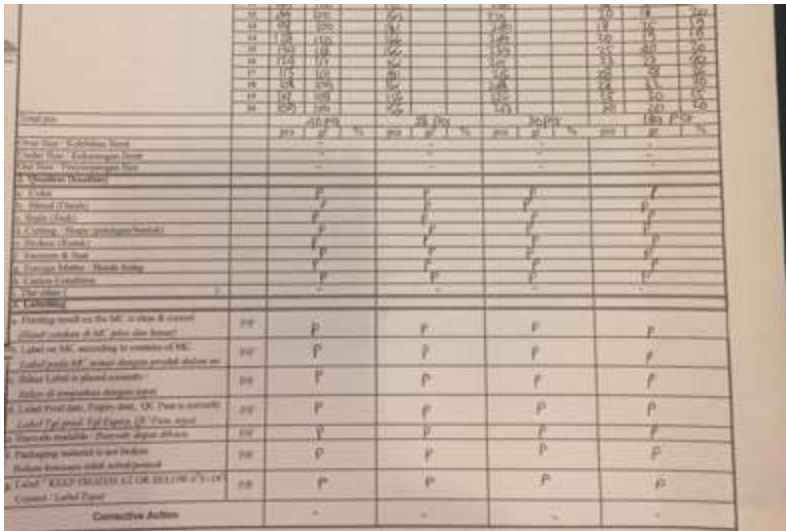


We also looked at the drivers  
Processors rely on yield to make  
profit.

No matter whether its Fish or  
crab

## Goods In

- Goods Processed
- Goods Out
- Yield
- Profit





The margin for error is enormous

The same process happens every  
day in 1000s of processing plants



2D Barcode + QR Code



Bill of Lading



Goods landed at port  
•Tag "Issued" to each fish

Unique Fish ID Generation



India  
Sri Lanka  
Indonesia  
Philippines  
Thailand  
Tunisia

SIMP

HACCP

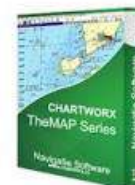
34 Picking plants

8 Processing Plants

QA

BRC

E Logbook



Predictive Pricing

Analytics

Shipment Data



PT. SIG ASIA

Integration with financial packages

Temperature Monitoring

Packaging stock levels

Cash Position

Production Reporting in real time

Mobile App

Blockchain

Low Stock level alerts

Current Stock Position

Stock Reconciliation

Live Alerts

Daily Poundage

Yield

Document Sharing



Artificial Intelligence

Multi Species Production capability







App for fish



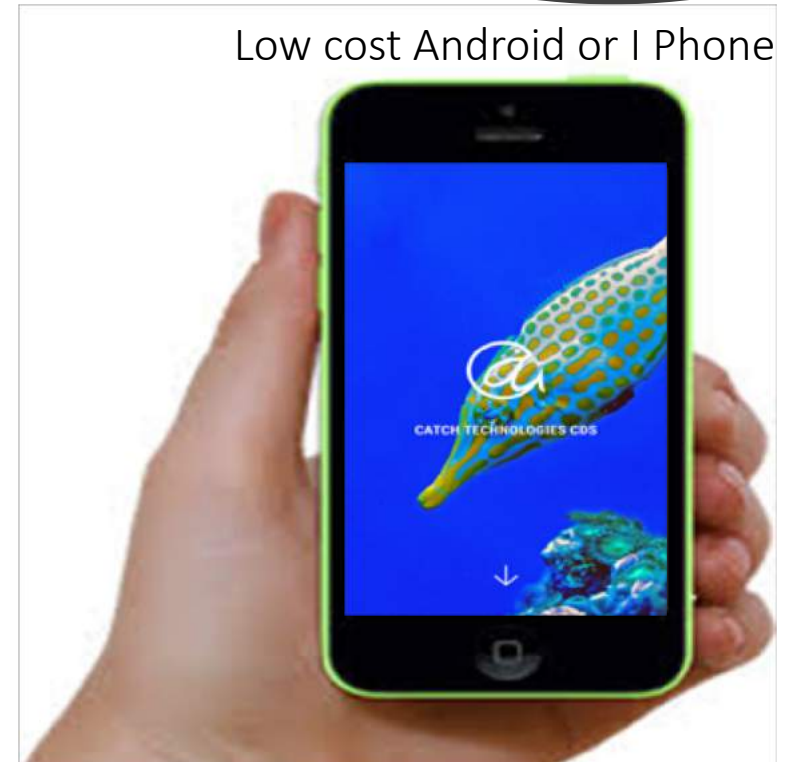
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App for crab and prawn

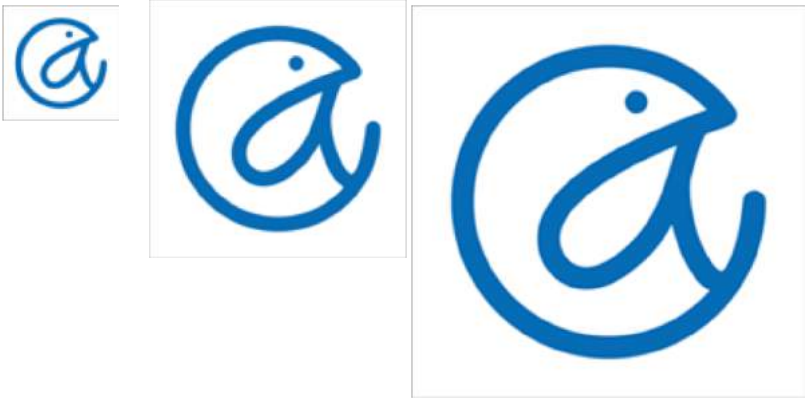


Low cost Android or I Phone





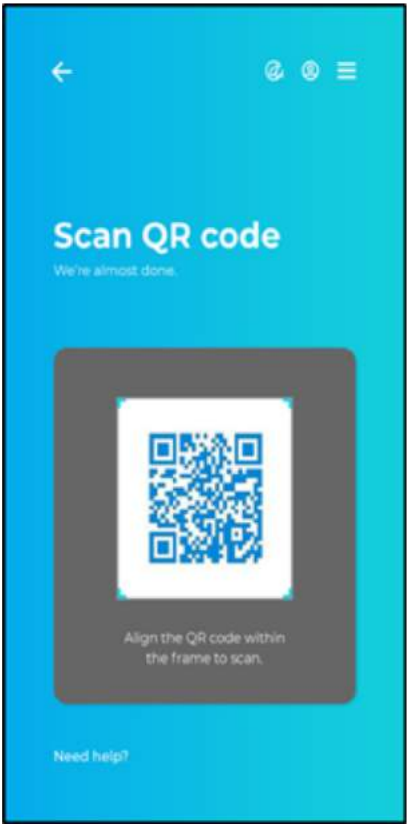
# The Catch Mobile App



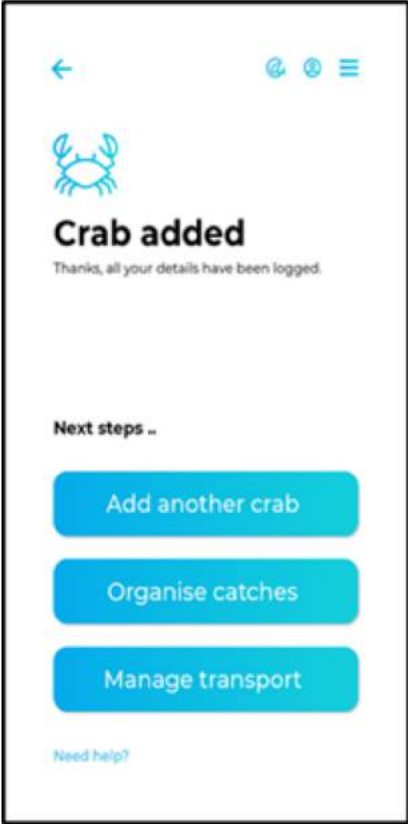
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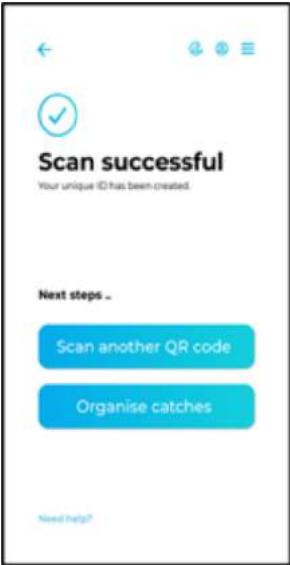
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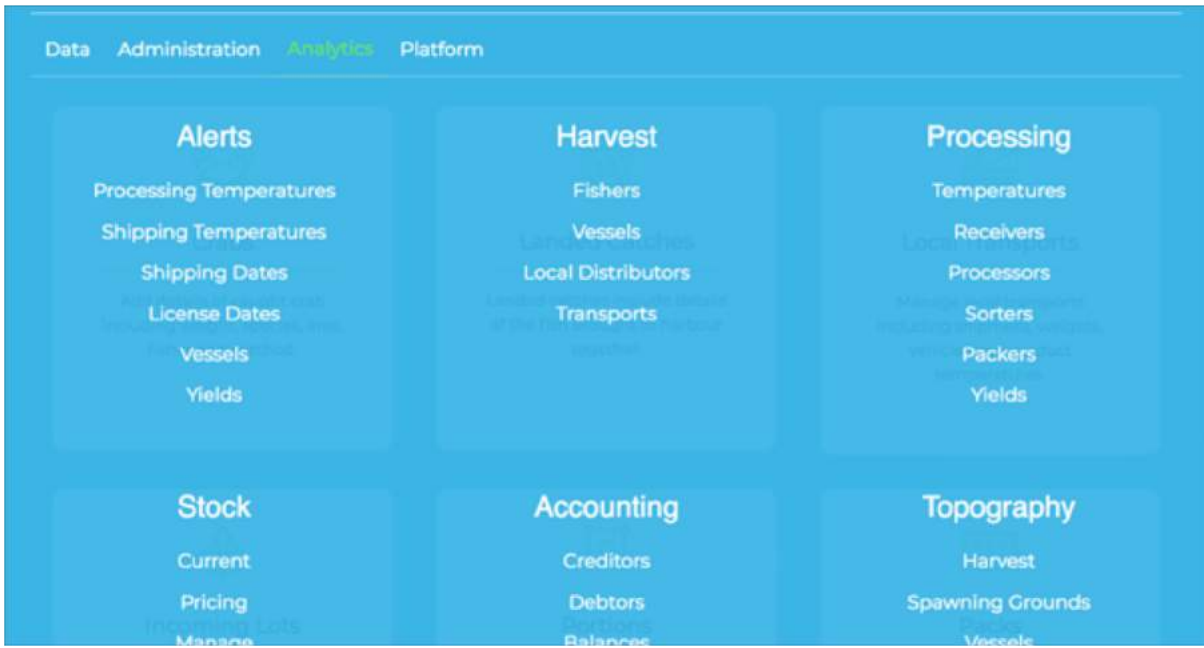
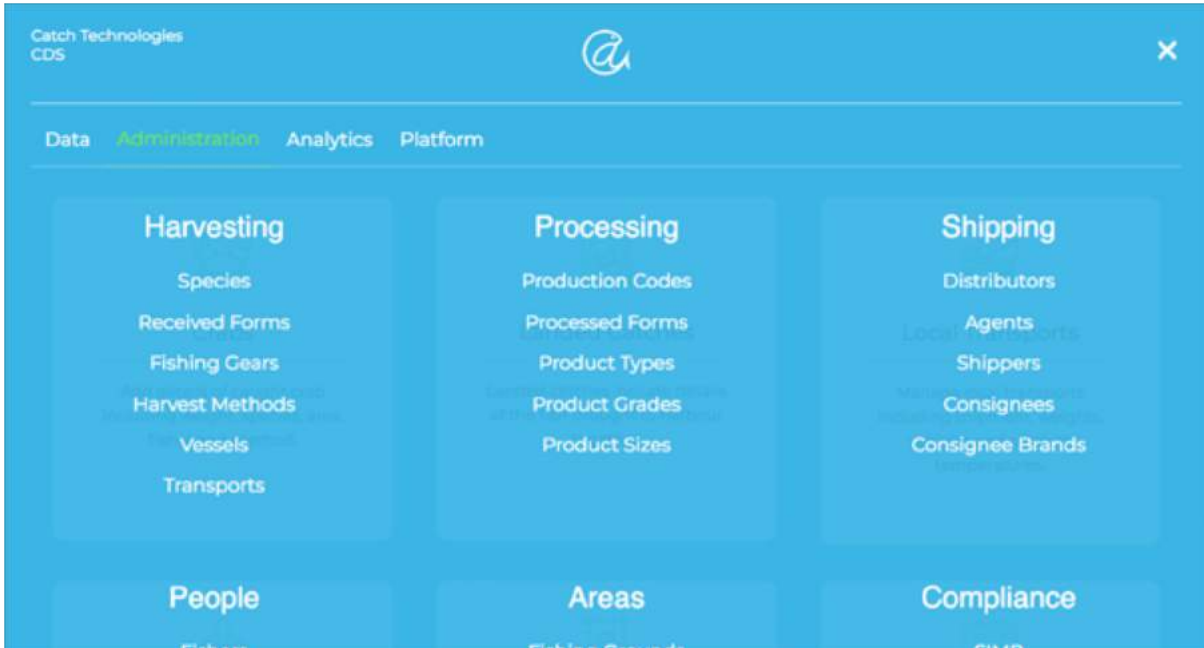
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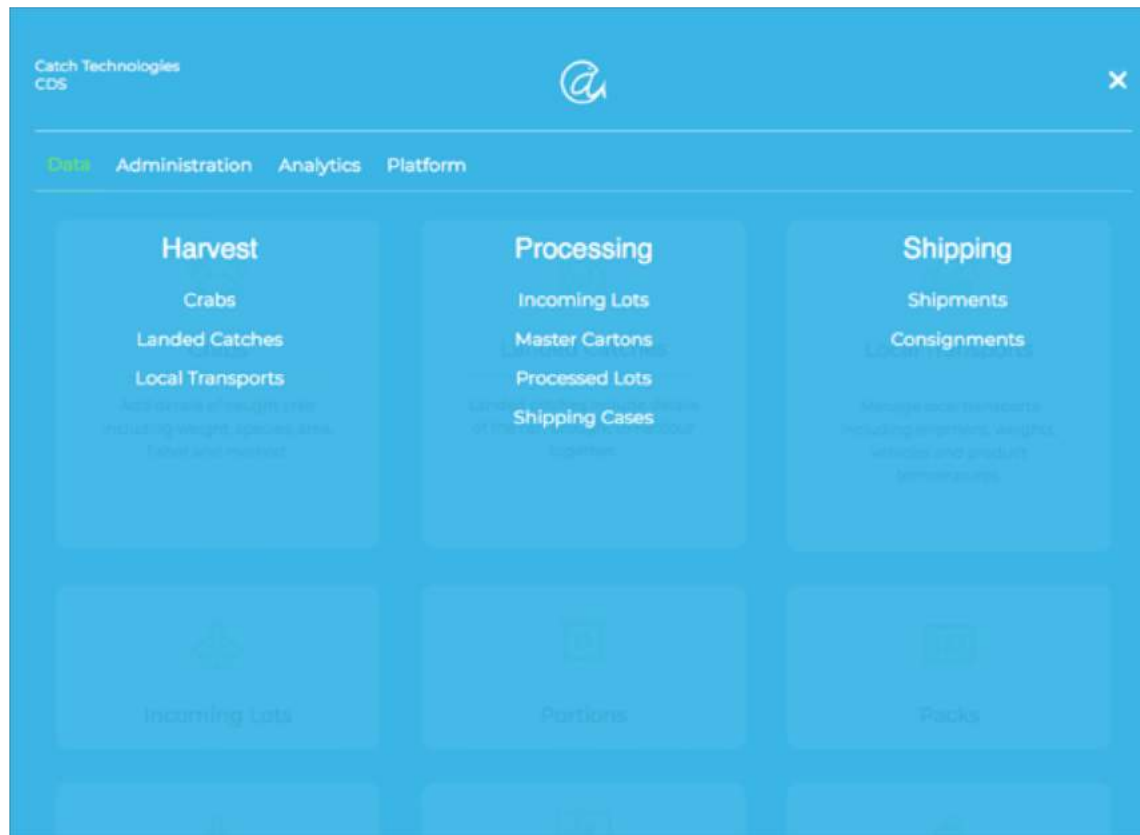


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# The Dashboard









Crab to Can





Collaboration with WWF



# HOOK

## A FISHING

### Fishing Vessels :

- Legally registered
- Licensed
- Meets government criteria

### Use Tuna Tags :

- easily traceable
- prevent non-sustainable tuna from entering supply chain
- monitored by WWF staff

## B LANDING

### Landing Sites :

- Government approved
- Fish catch report is verified by local government

## C BUYING STATION

### Tuna catch :

- verified tuna tags and fish catch reports
- strict quality check

## D LOCAL TRANSPORT

### Transport :

- Approved refrigerated trucks
- Required filled up transport form
- Required filled up transport form

## E EXPORTERS

### Export :

- Documentation of all arriving tuna is checked and verified at the export facility
- Only the best tuna are exported

## F INTERNATIONAL TRANSPORT

### Transport :

- Representative of local ministry of fisheries (BFAR) checks documentation and shipments at the airport

## G IMPORTERS / RETAILERS:

### Imports and retailers :

- Quality and temperature checks are performed
- Easily verify the legality and origin of the fish using the attached certificate



# COOK





- **3** PROVINCES
- **15** MUNICIPALITIES
- **112** TUNA FISHING VILLAGES
- **2,770** TUNA FISHERS
- **1,739** TUNA VESSELS

## MINDORO OCCIDENTAL

WEST PHILIPPINES



- **1** PROVINCES
- **6** MUNICIPALITIES
- **28** TUNA FISHING VILLAGES
- **3,178** TUNA FISHERS
- **1,361** TUNA VESSELS







- E-CDS is a part of WWF's Traceability improvement project for small-scale Yellowfin Tuna handline fisheries in the Province of Occidental Mindoro.
- Fish catch monitoring is being conducted in the 2 major tuna landing municipalities of the province (Mamburao and Sablayan).



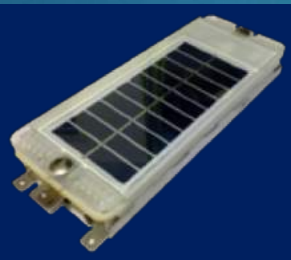


- ▶ Benefits of E-CDS to the small-scale Yellowfin Tuna handline Fisheries:
- ▶ Improved traceability system for small-scale yellowfin tuna handline fisheries in the 2 WWF FIP sites involving around 5,000 fishers, 112 fishing villages and over 50 local tuna buying stations.
- ▶ Compliance to mandatory regulations.
- ▶ Market Protection.
- ▶ Market competitive advantage.
- ▶ Food Safety.
- ▶ Supply chain and process management of small-scale handline tuna fisheries.



# E-CDS able to:

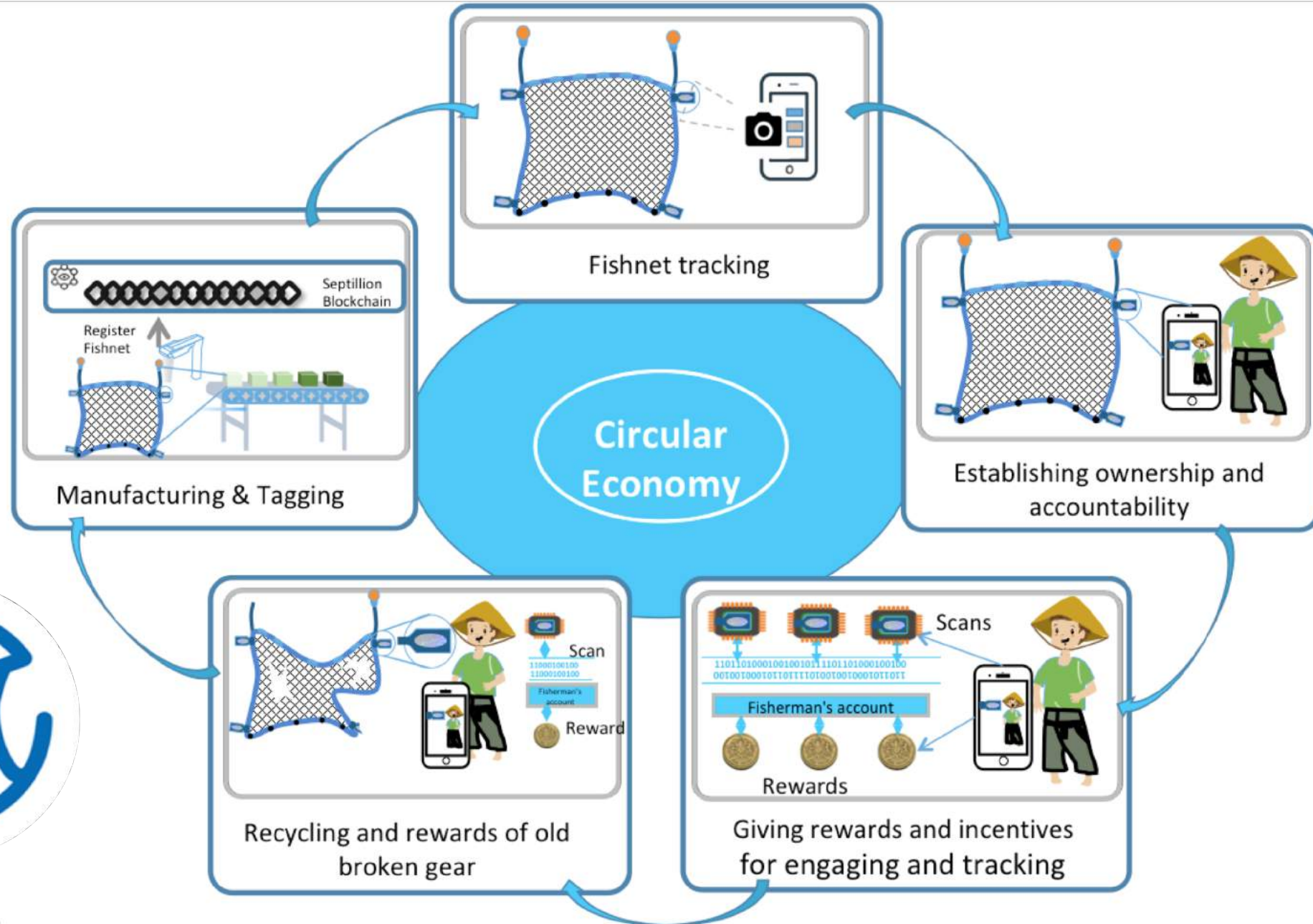
- ▶ View and manage all product data in real-time throughout the supply chain
- ▶ Identify product outside quality perimeters and act immediately
- ▶ Access all data, any time but customize dashboard to only see what's important.
- ▶ Can access historical data for fisheries management purposes.
- ▶ eCDS integrated with other technology that allows verifiable traceability and is publicly available.



# SEPTILLION

PHYSICAL TO DIGITAL

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**CHARTWORX**

**e-Logbook®**

**For the Fishery**



**Version: 1.8.3 / 2019 / XSD 3.1**

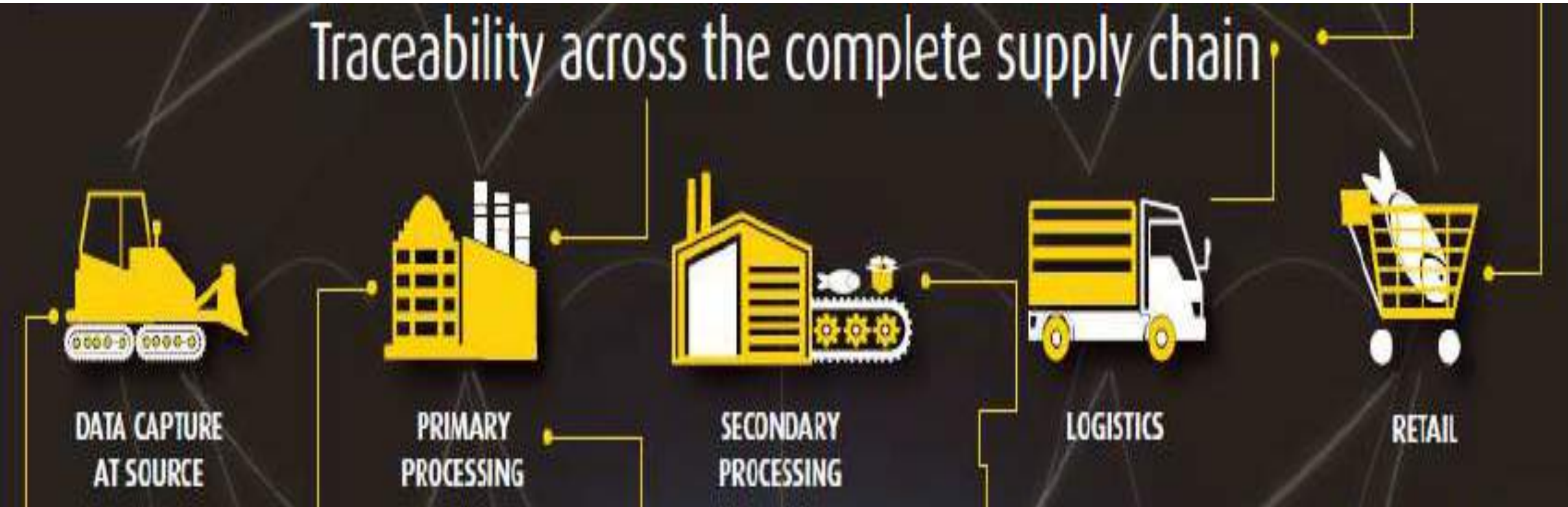
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