Data as an Enabler for Fisheries Trading and Supply Chain

International Seminar for Maritime and Fisheries Big Data

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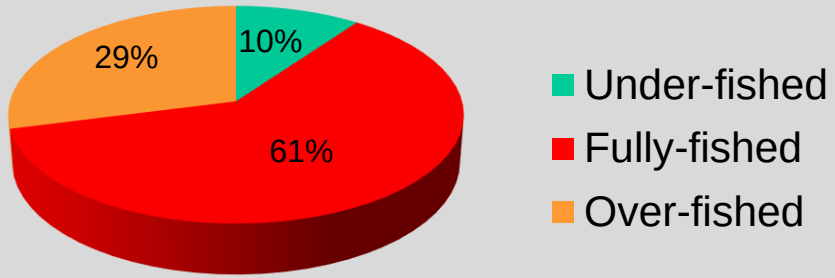
8 Key Challenges faced by the Fisheries and Seafood Industries

1 Sustainability

90% of species are overfished or fully exploited



Source: Food and Agriculture Organization of the United Nations (FAO)

2 Illegal Fishing

Illegal, Unreported or Unregulated fishing operations (IUU) – aka Pirate Fishing

11 ~ 26 million tons

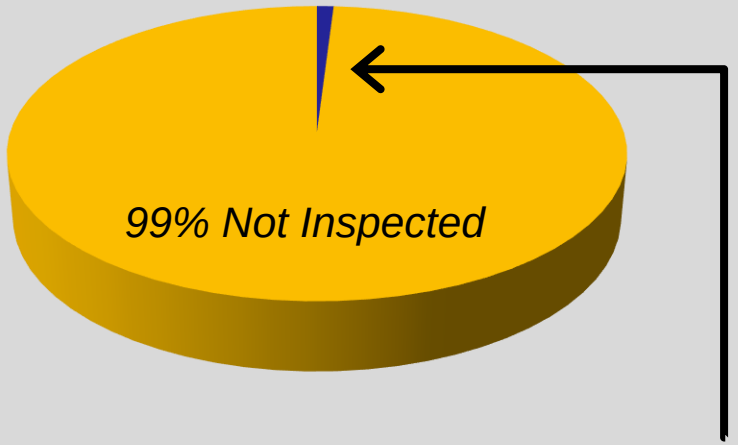
12% ~ 28% catch

10 ~ 23 billion USD

Source: Agnew et.al., 2009

3 Unsafe

US Seafood Import



Among the 1% Inspected

Up to 51% Rejected!

4 Wastage

Up to 60% discarded, lost or wasted in supply chain.

Losses from

- Inadequate cold chain management
- Discard at sea
- Deterioration during transportation and distribution

5 Fraud

Up to 87% of the species are mislabeled in some states

escolar (oil fish)

Mislabeled as white tuna in 5 out of 9 restaurants studied

Source: Oceana

6 Fragmented

Most convoluted, opaque and uncooperative of all food supply chains

Fragmented Supply Chain

Limits Information Flow

What? Where? Quality ? Quantity?

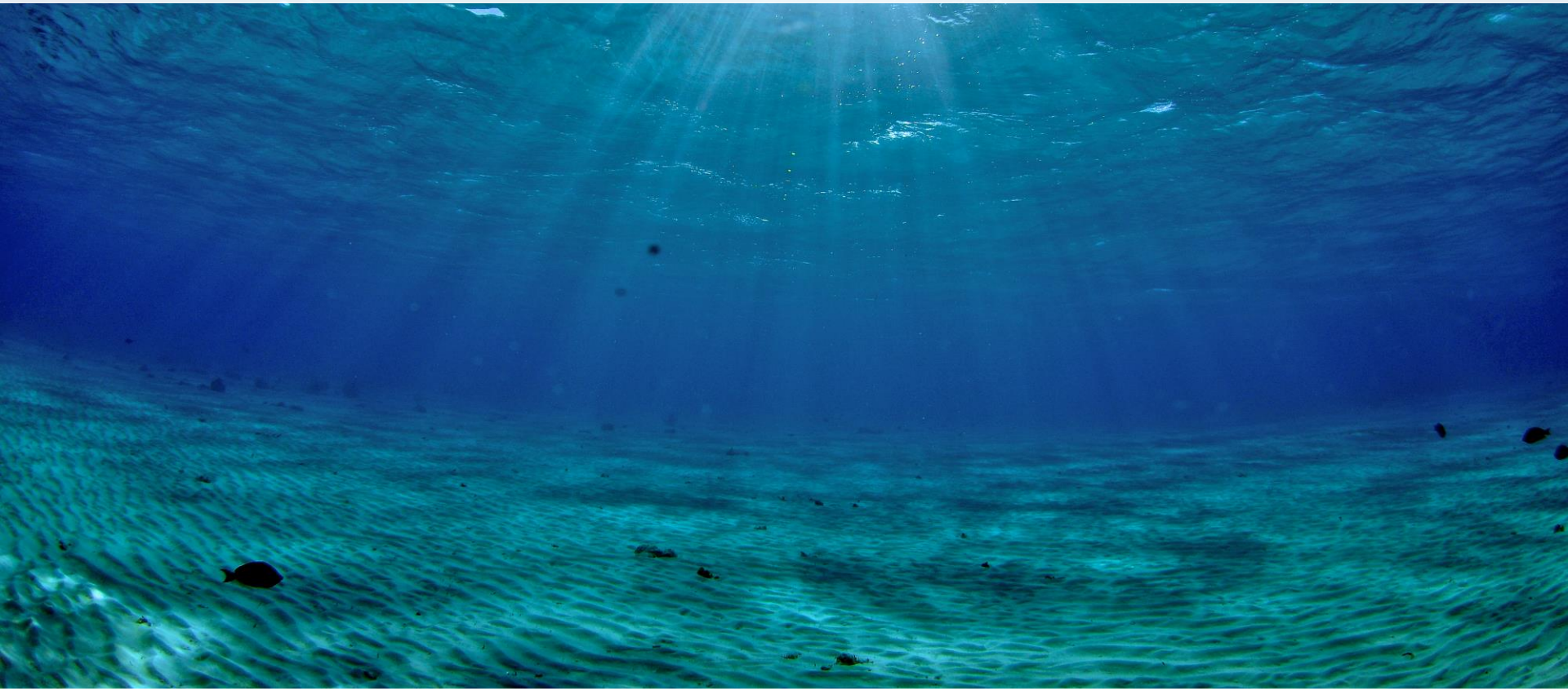
7 Inequitable

Small scale fishers and farmers in the developing world can receive **< 5%** of the net profit share from the sale in developed markets of the seafood they catch or farm.

8 Lack of Standards

No product standards in the industry

Our fisheries are at a breaking point…



Governments Lack Data

- Who is fishing where?
- How often and how long?
- What is caught?
- Environment impact?
- Which market is sold and distributed?

Industry Lack Data

- How much product is landed?
- How much is stock?
- Quantity of the product the market demand?

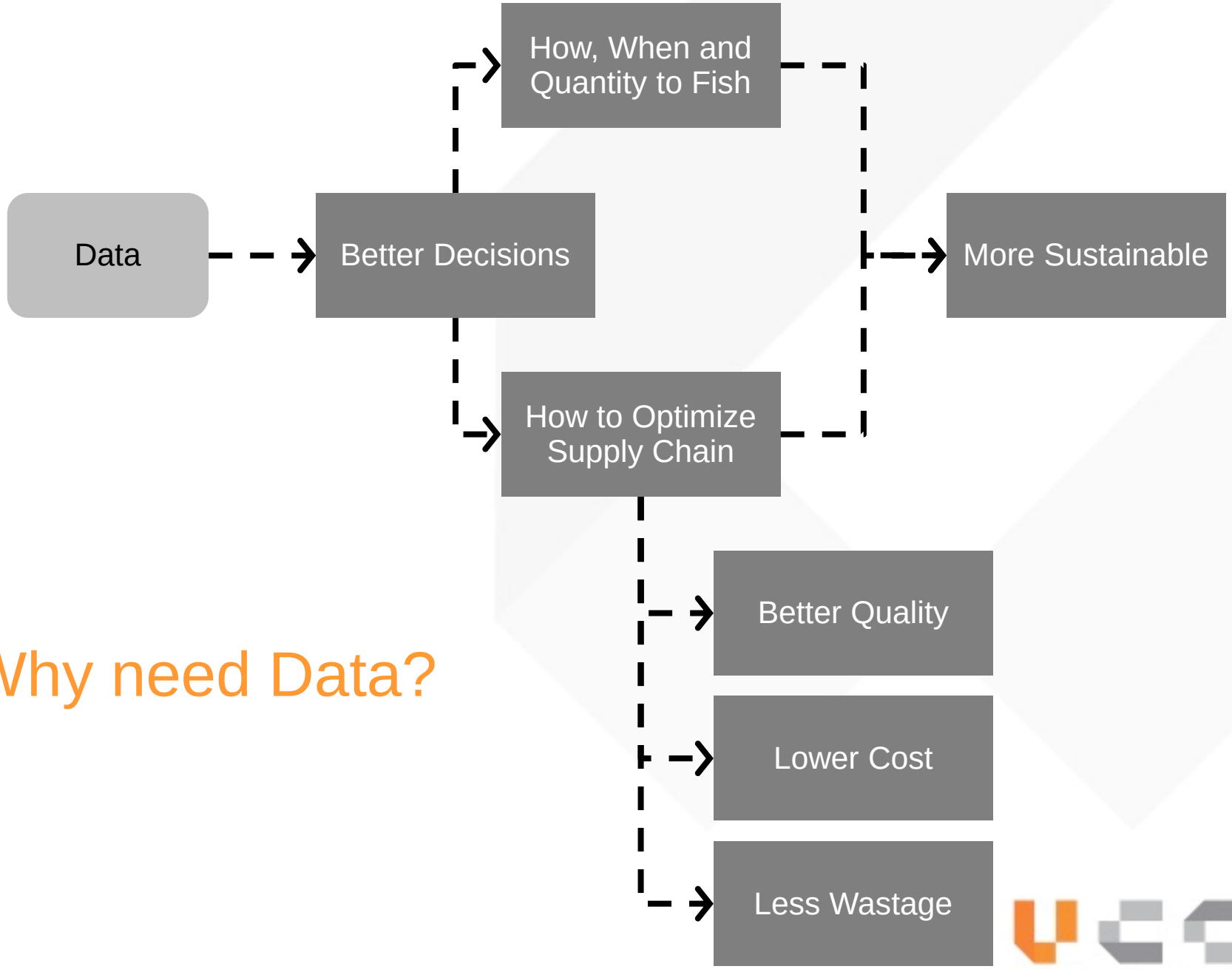
Opaque Supply Chain

- Seafood supply chain is fragmented and opaque.
- Little data within supply chain.
- Guarded by middlemen.
- Deliberate obfuscation and barriers for traceability.
- Supply chain providers are unable to optimize supply chain performance.

Data as an enabler for seafood sustainability

A project by vCargo Cloud and partner EcoHub

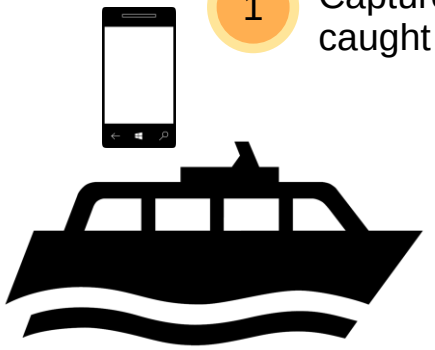
Why need Data?



2 Transmit data through satellite to central database

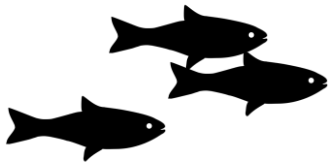
4 Buyers to order or place a tender for type and quantity

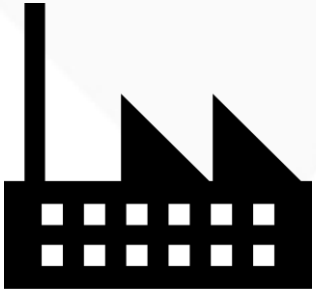
1 Capture information on fish caught into electronic log book

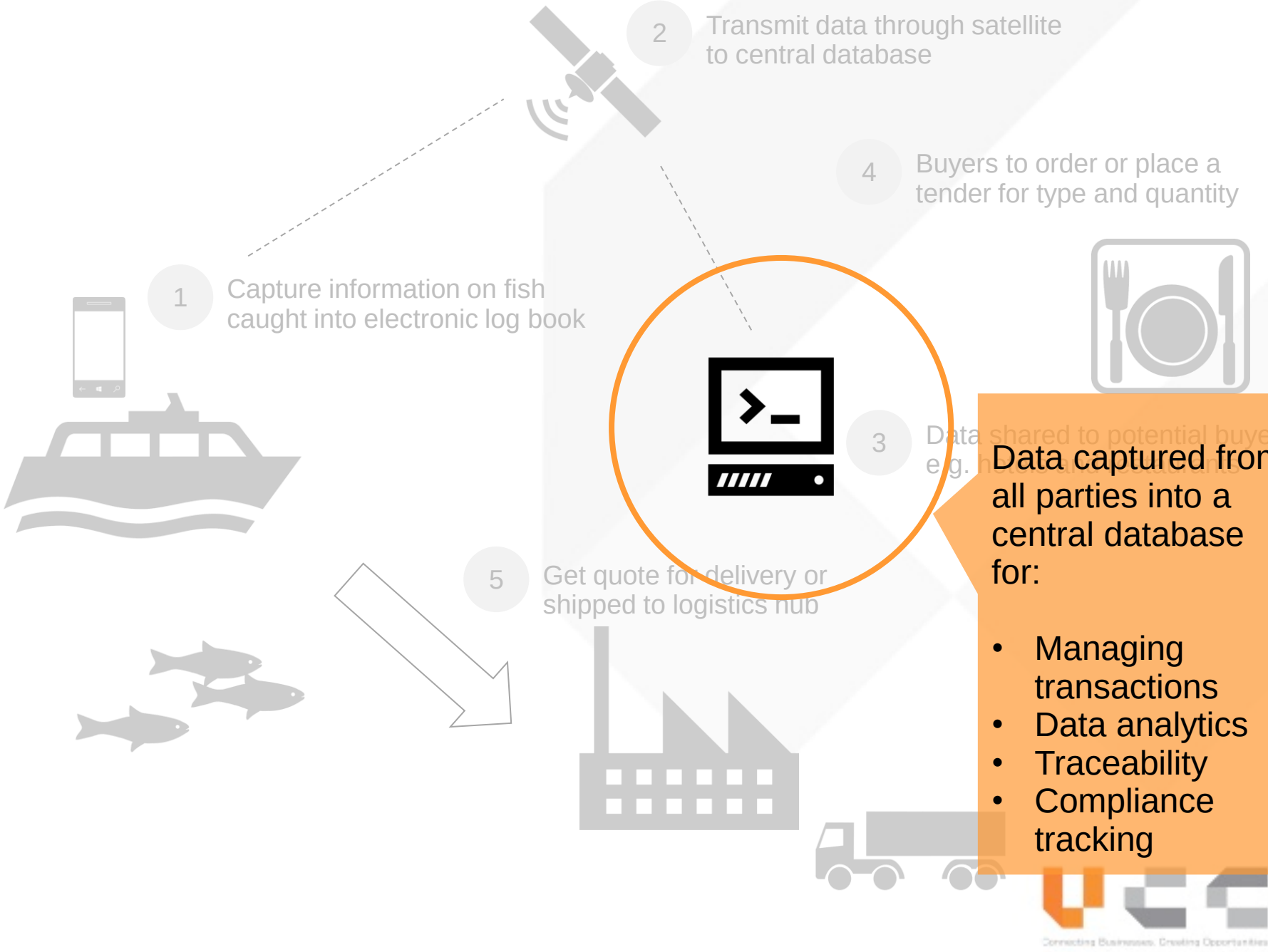


3 Data shared to potential buyer, e.g. hotels and restaurants

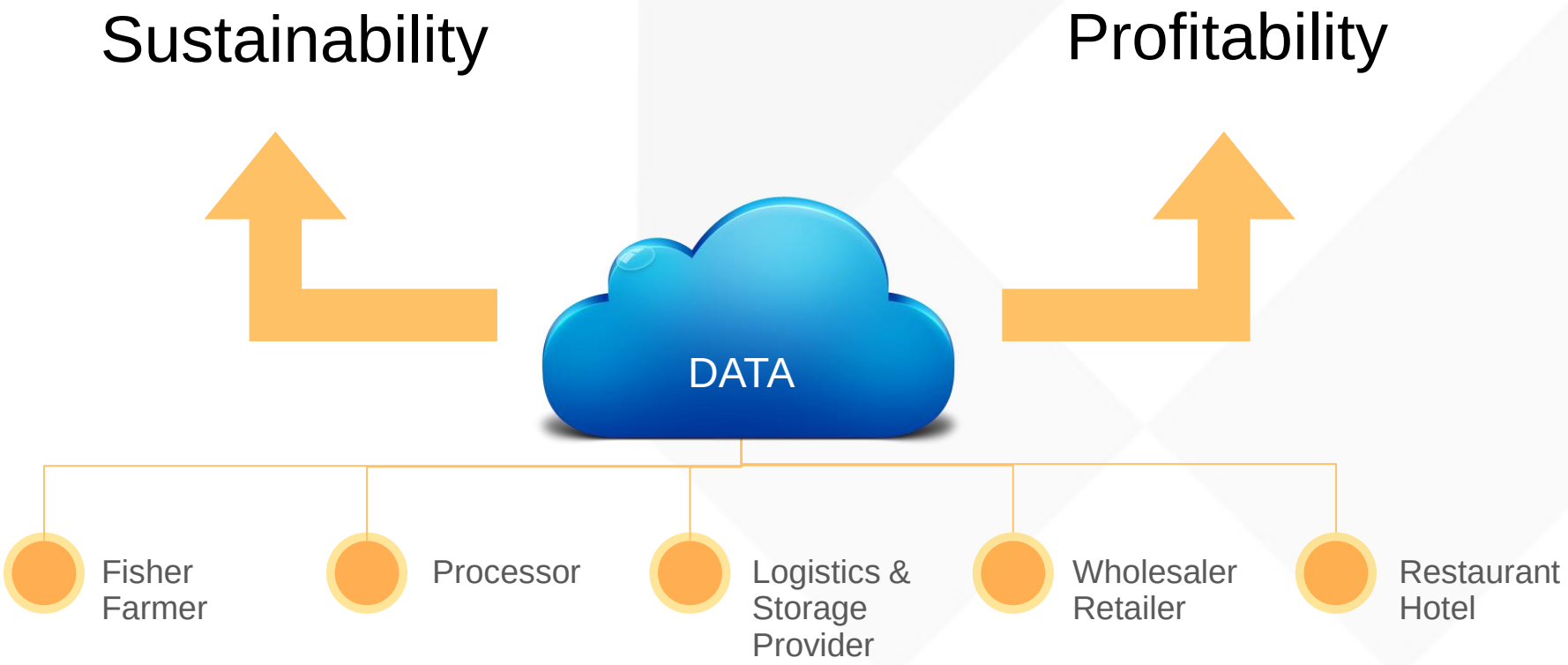
5 Get quote for delivery or shipped to logistics hub






2
Transmit data through satellite to central database
4
Buyers to order or place a tender for type and quantity
1
Capture information on fish caught into electronic log book
3
Data shared to potential buyer, e.g. hotels and restaurants
5
Get quote for delivery or shipped to logistics hub
Data captured from all parties into a central database for:
• Managing transactions
• Data analytics
• Traceability
• Compliance tracking

Data Driven Platform



Summary

- Challenges faced by fisheries and seafood industry due to lack of data availability
- With data, it will facilitate compliance and regulatory for governments
- With data and transparency, it will drive sustainability and profitability for the industry

Connecting Businesses. Creating Opportunities.

THANK YOU

credits to VCC's partner, EcoHub

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