



Ministry for Primary Industries  
Manatū Ahu Matua



Plant & Food  
**RESEARCH**

RANGAHAU AHUMĀRA KAI



# Precision Seafood Harvesting: A Public-Private Approach to Innovation

THE PRECISION SEAFOOD HARVESTING PRIMARY GROWTH PARTNERSHIP  
PROGRAMME

# PSH: A proud Primary Growth Partnership

**Ministry for Primary Industries**  
Manatū Ahu Matua



- » Joint venture between government (Ministry for Primary Industries) and industry
- » Primarily business-led and market-driven
- » Investment in long-term innovation programmes to increase the market success of the primary industries

# PSH: The programme and partners

- » 6 year PGP programme sponsored by MPI (currently in year 4)
- » \$24M from industry partners, \$24M from MPI
- » Plant & Food Research – Research Provider

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# Development of the technology

## » **The 'a-ha' moment**

- » Why do we have to **strain** the fish out?
- » Why do we have to **exhaust** them?
- » Why are we **damaging** them during harvest?

» The answers led to **Precision Seafood Harvesting** the commercialisation phase of nearly ten years of research

» Programme looks at sustainability, quality and value gain objectives together with validation requirements

» The biggest step forward for commercial fishing in **150 years!**

# The Vision

*Imagine if every fish landed on a vessel was alive – **in perfect condition** – and small fish and other species could be safely released underwater before a catch was lifted on-board.*

# What are we doing?

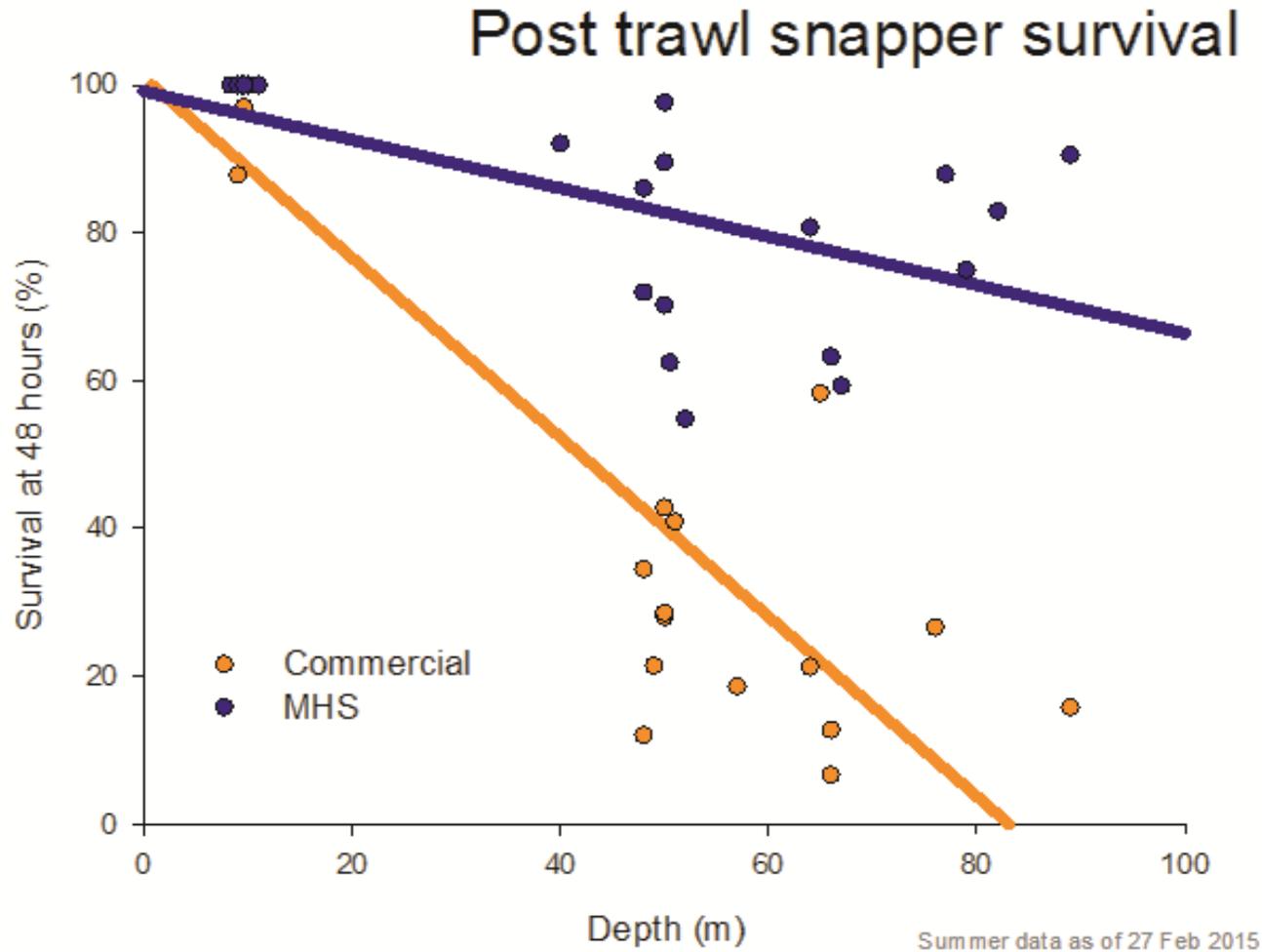
- The technology creates a calm environment within the harvesting process that cares for the fish
- A considerable amount of post harvest validation work is carried out to measure the **quality** of fish landed to the back of the boat. Specific product **demand** and market prices also indicate we are on the **right** track



# What are we doing?

- » Our post harvest assessment team document the **composition** of the catch, the **size** of the catch, and the **quality** of the fish.
- » Following on from this is the **development** of handling and storage systems to **maintain** the quality of the fish. The focus remains **always** on the fish
- » Improved survival rate **potential** of non-intended catch (juvenile fish and by-catch)
- » The significant amount of data collected is being used to support the regulatory change required to commercialise the harvesting system

# What does this mean?



# Regulatory considerations

- » Regulatory change is required for the PSH modular harvesting system gear to be introduced commercially.
- » Role of Ministry for Primary Industries
- » Considerations include:
  - » Current system
  - » Gear
  - » Bycatch – amount and survival rates  
(short- and long-term)





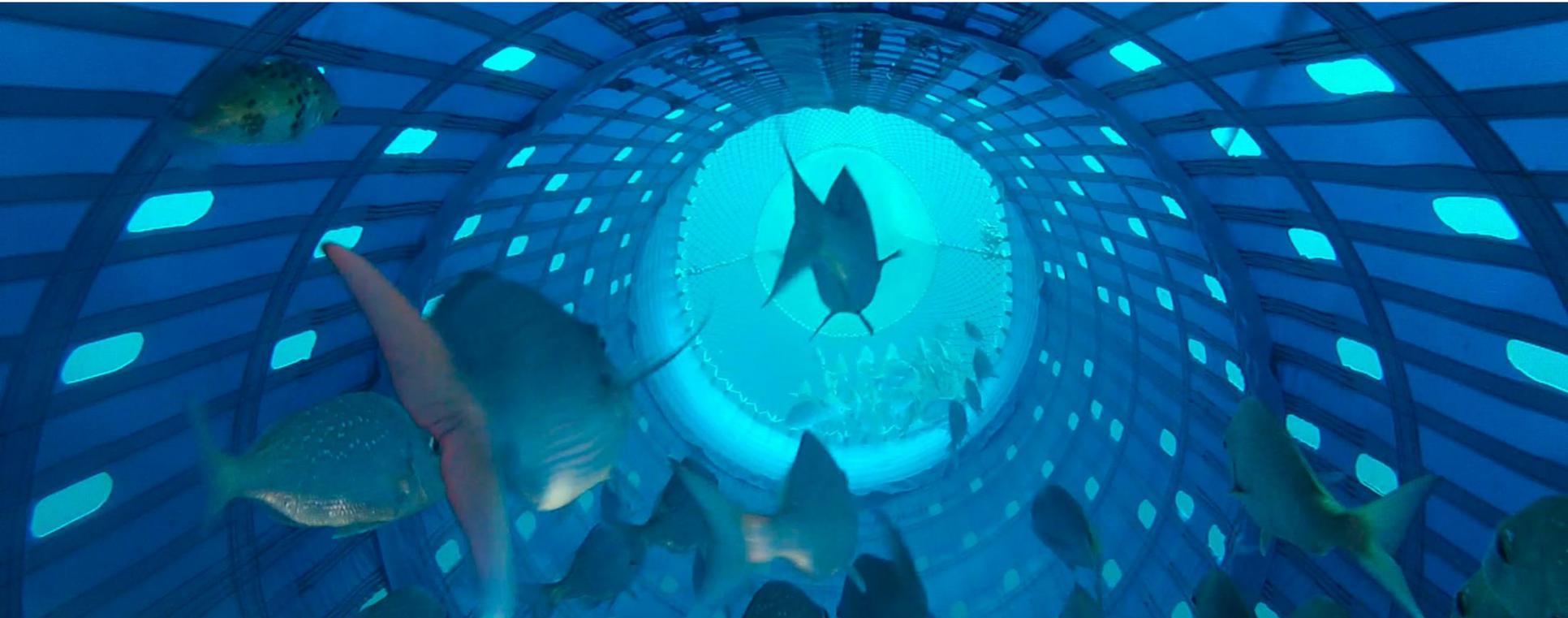
Precision  
Seafood  
Harvesting

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