

A Study on Consumers' Perceptions, Acceptance, and Willingness to Pay (WTP) for Cell-Based Seafood Products

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MOTIVATIONS

With the growing human population, consumer demand for seafood is increasing while the current production rate of capture fisheries and aquaculture cannot keep up¹. Soon, there will be a substantial gap between the supply and demand of seafood².

Cell-based seafood, the production of seafood from cells such as muscle and fat cells using cell culture techniques, has been proposed as a novel approach to complement the conventional seafood industry³.

Consumers have the greatest influence on the marketability and success of cell-based seafood. However, there are multiple studies on consumer perceptions of cell-based meat but not seafood.

-39%

MARINE SPECIES IN THE PAST 40 YEARS¹

30%

OF THE WORLD'S FISH STOCKS ARE OVERFISHED¹

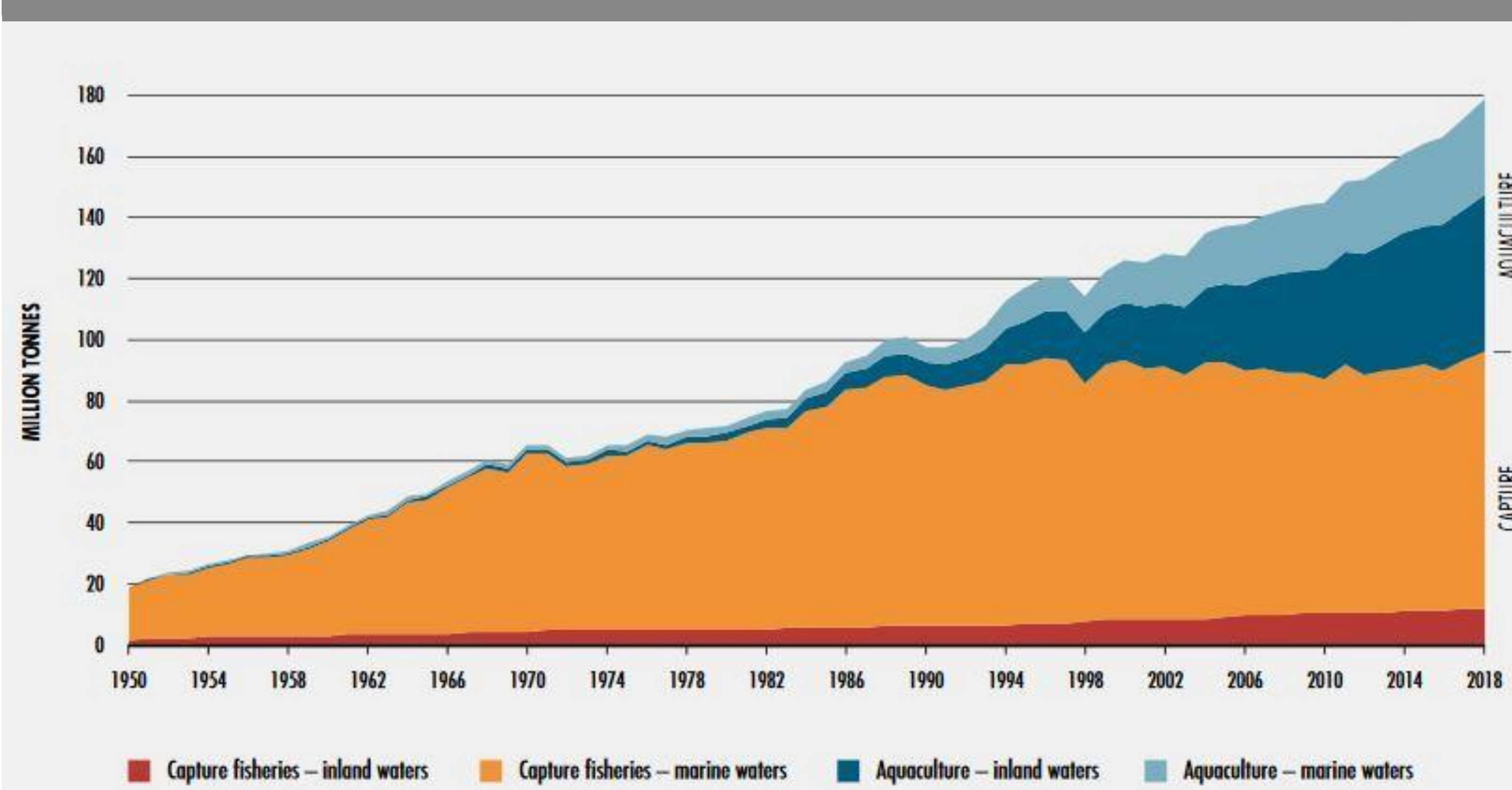
60%

OF THE WORLD'S FISH STOCKS ARE FULLY FISHED¹

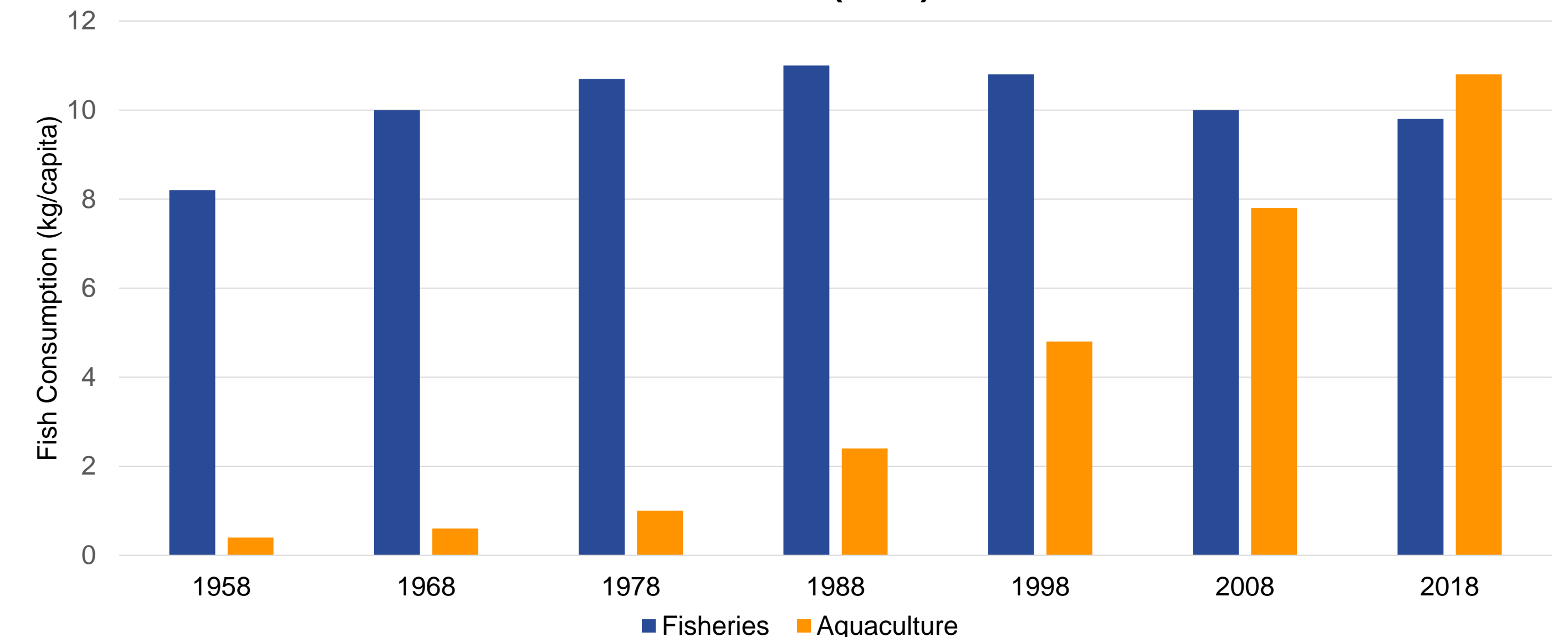
10%

OF THE WORLD'S FISH STOCKS ARE UNDERFISHED¹

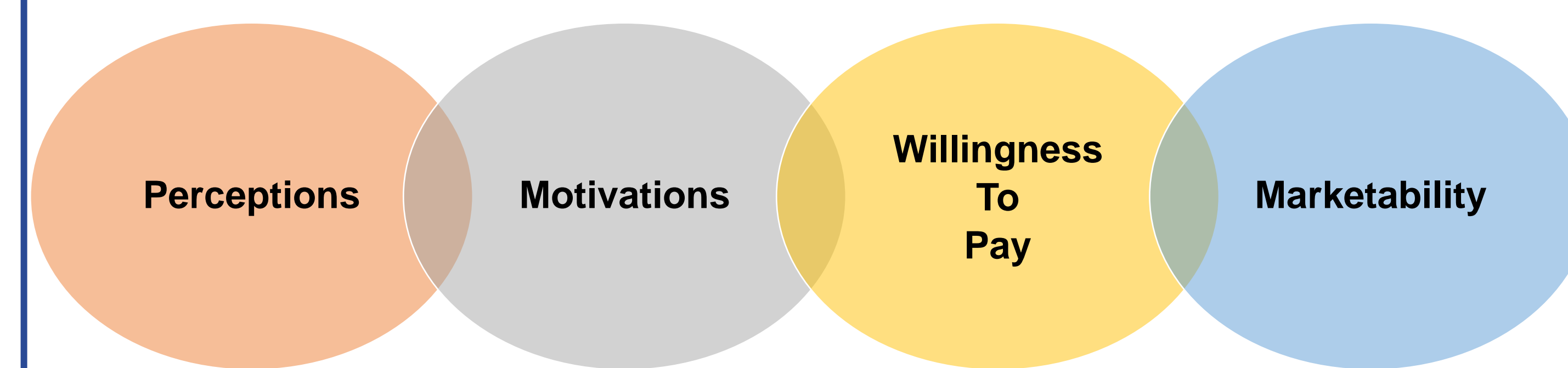
WORLD CAPTURE FISHERIES AND AQUACULTURE PRODUCTION: 179 MILLION TONS¹



Human Consumed 156 Million Tons (82%) of Fish Production in 2018¹



OBJECTIVES



- To understand the influence of personal and family's seafood consumption patterns, socioeconomic status, and demographic factors on their cell-based seafood attitude.
- To identify the factors affecting cell-based seafood consumption, which are cost, taste, environmental impact, health benefit, and accessibility.
- To explore consumers' willingness to pay for cell-based seafood.
- To investigate the potential of cell-based seafood as an alternative product in the market and restaurants.

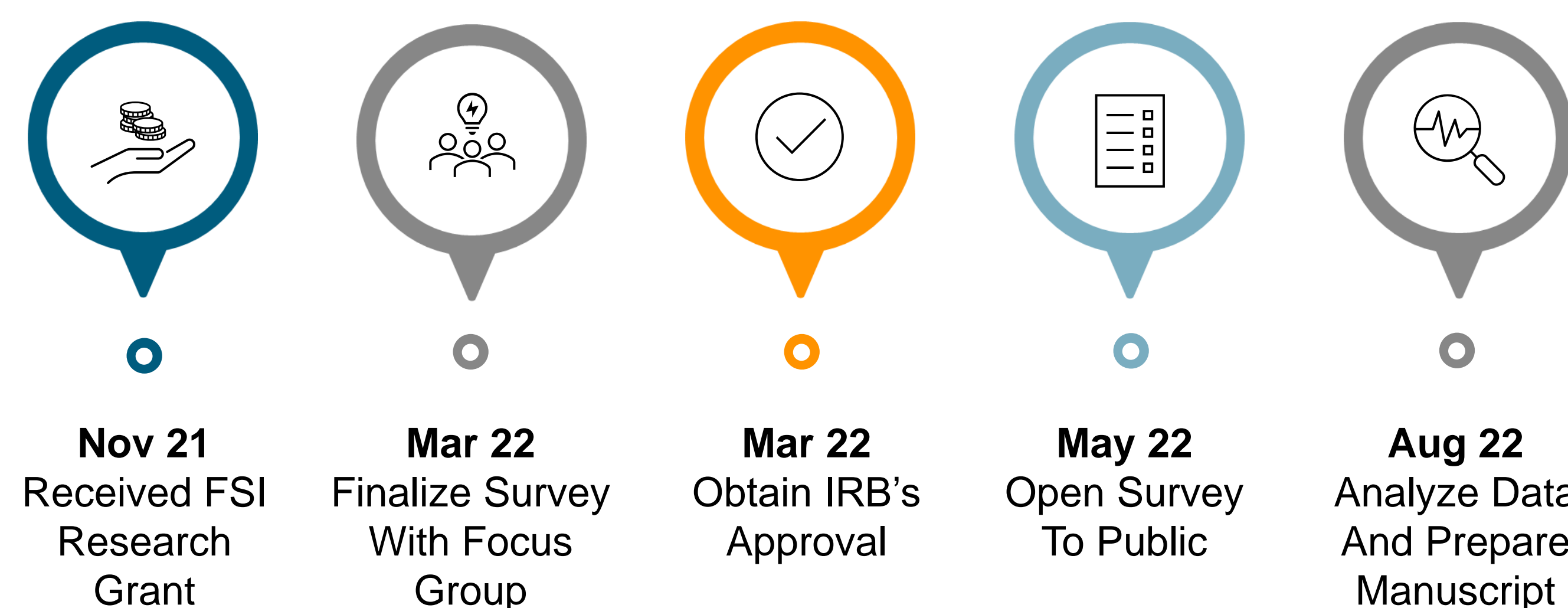
Cost Taste Health Environmental Accessibility

SURVEY DESIGN

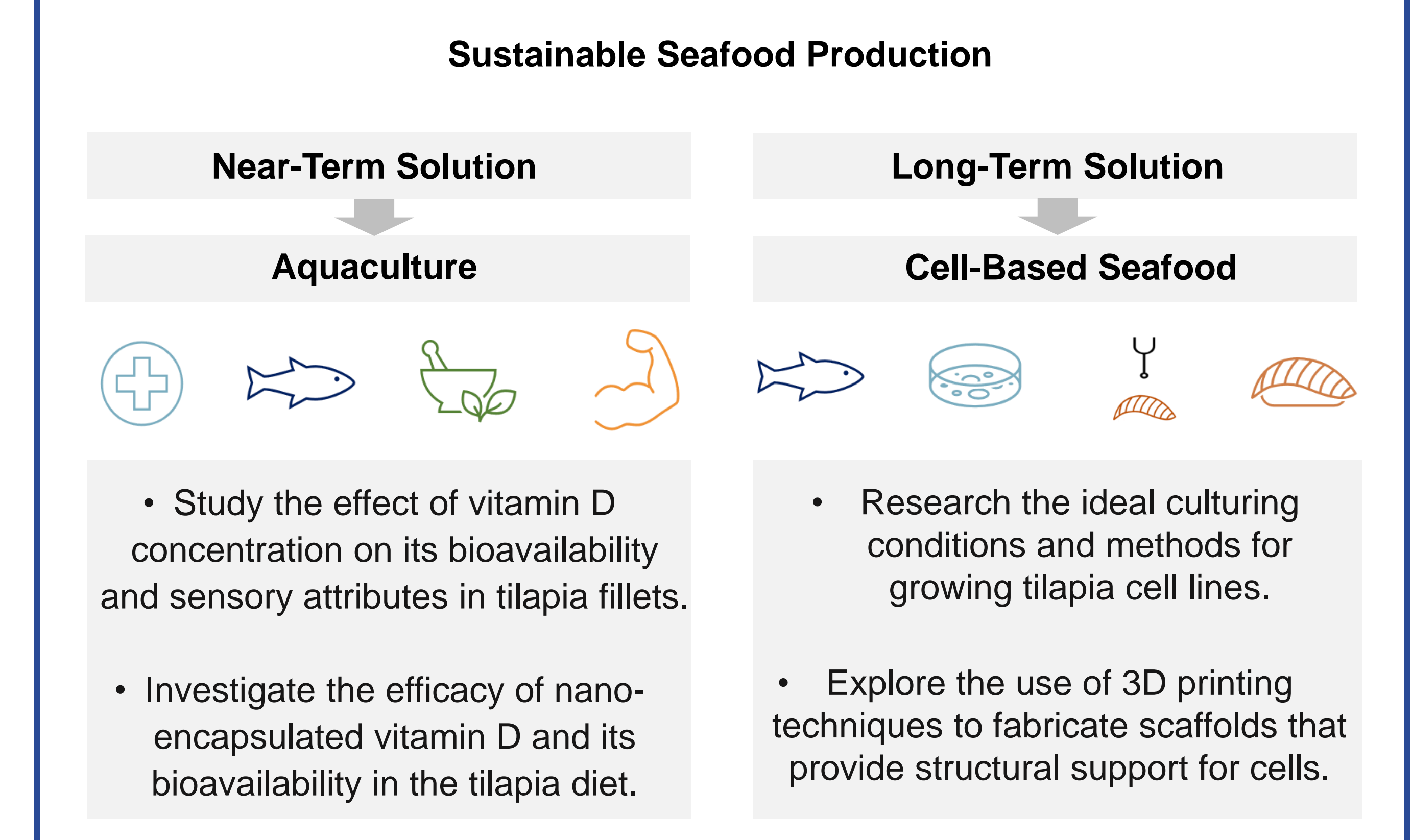
Platform: Qualtrics
Participants: 1,500 U.S. residents, ages 18 to 65
There are 5 sections in this survey:

- Consumers' dietary background, personal and family's seafood consumption patterns
- Education materials to help consumers understand cell-based seafood production
- Presenting a hypothetical scenario in which both conventional and cell-based fish fillet have similar nutritional and sensory attributes to understand consumers' motivations on choosing cell-based seafood
- Consumers' WTP for cell-based seafood compared to conventional seafood
- Consumers' demographic

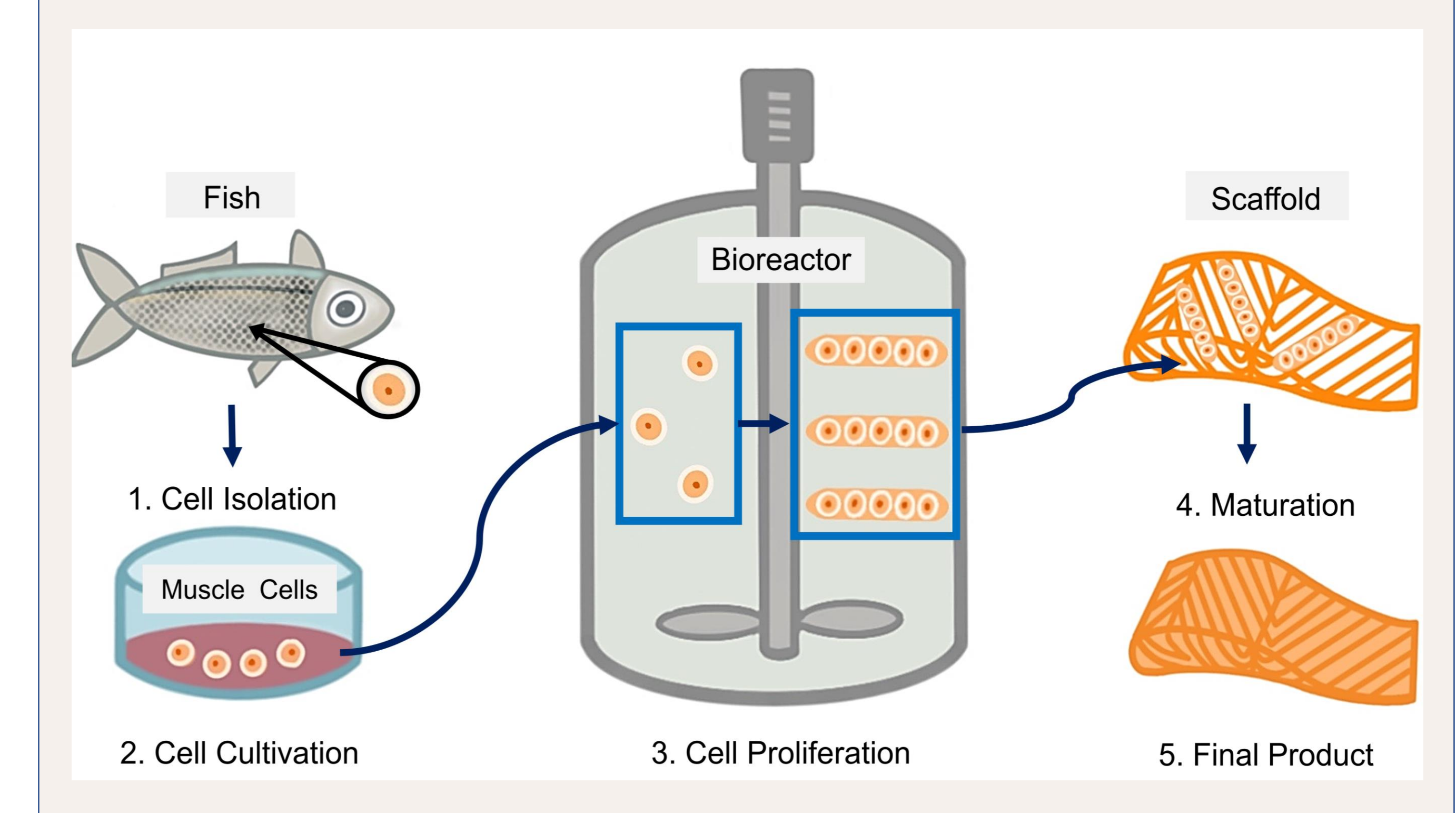
TIMELINE



RESEARCH DIRECTIONS



CELL-BASED SEAFOOD PROCESS FLOW



ACKNOWLEDGEMENT

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