



fish.ai

making aquariums simple

Sponsored by



ACCENTURE TEAM TWO

OUR TEAM



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PRESENTATION

AGENDA

- 
- **Problem**
 - **Solution**
 - **Implementation**
 - **Product Roadmap & Scalability**
 - **Market Size**
 - **Q&A**

THE PROBLEM

Aquariums are **high maintenance** as the fish are incredibly **sensitive to water chemistry**.

Small amounts of NO₃

- susceptible to disease
- weakens the immune system

Excess NO₂

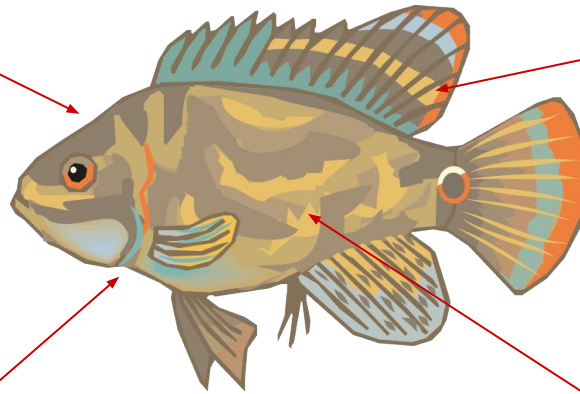
- reduces fish blood oxygen
- chronic, low-level exposure leads to rotting fins, white spot disease

Small amounts of NH₃

- metabolic stress
- gill and internal organ damage

Improper pH

- strips the outer layer of fish
- chaps their skin and eyes



STATUS QUO

Currently, aquarium maintenance is **almost entirely manual**.

- Constantly monitor fish health as a proxy for assessing water quality
- Regular manual testing with kits
- Adjust feeding amount
- Adding aquarium salt mix
- Upregulate aeration of spray bars, bubblers
- Add nitrifying bacteria if necessary



Who has time for all this?

PAIN POINTS

Currently, aquarium maintenance is **almost entirely manual**.



MANUAL TESTING

Constant monitoring of fish health is required to prompt a manual chemistry test.



NO MONITORING PLATFORM

There is no central platform for fish owners to monitor the water quality, only manual, and lengthy water tests .



COMPLEXITY

It's often unclear why an aquarium is unhealthy. Steps required to fix issues often require lots of research.

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REAL-TIME MONITORING

Precisely monitors water chemistry pH, NO₂, NO₃ & NH₃ levels in real time with awareness of critical thresholds.



EMAIL NOTIFICATIONS

Sends the user email notifications when water chemistry levels are abnormal with instructions on how to fix them.



CENTRALISED DASHBOARD

A single dashboard to monitor all water chemistry levels and historical data for easy diagnosis.

OUR TARGET AUDIENCE

Our target audience are aquarium owners with fish making up **18% of the pet market** as the third most popular pet.

As an fish owner, I should be able to...

Enjoy my aquarium without any excess **burden of maintenance**.

01



02

Automatically and **constantly monitor the water quality** in my aquarium.

Be **notified instantly** when **water chemistry is at dangerous levels**.

03



04

Get **actionable advice** on how to **immediately rectify** the situation.

PRESENTATION

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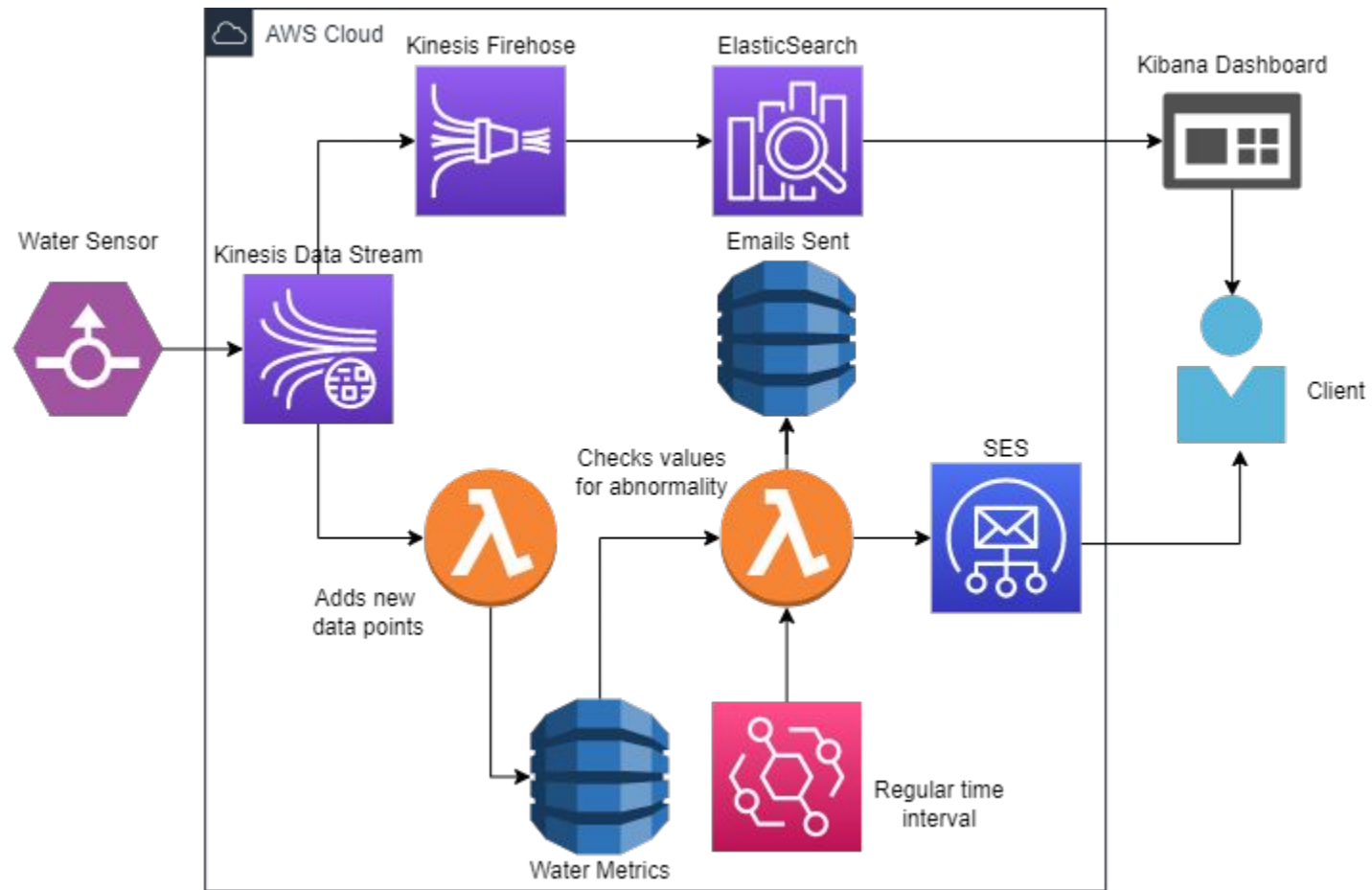
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fish.ai Architecture (MVP)

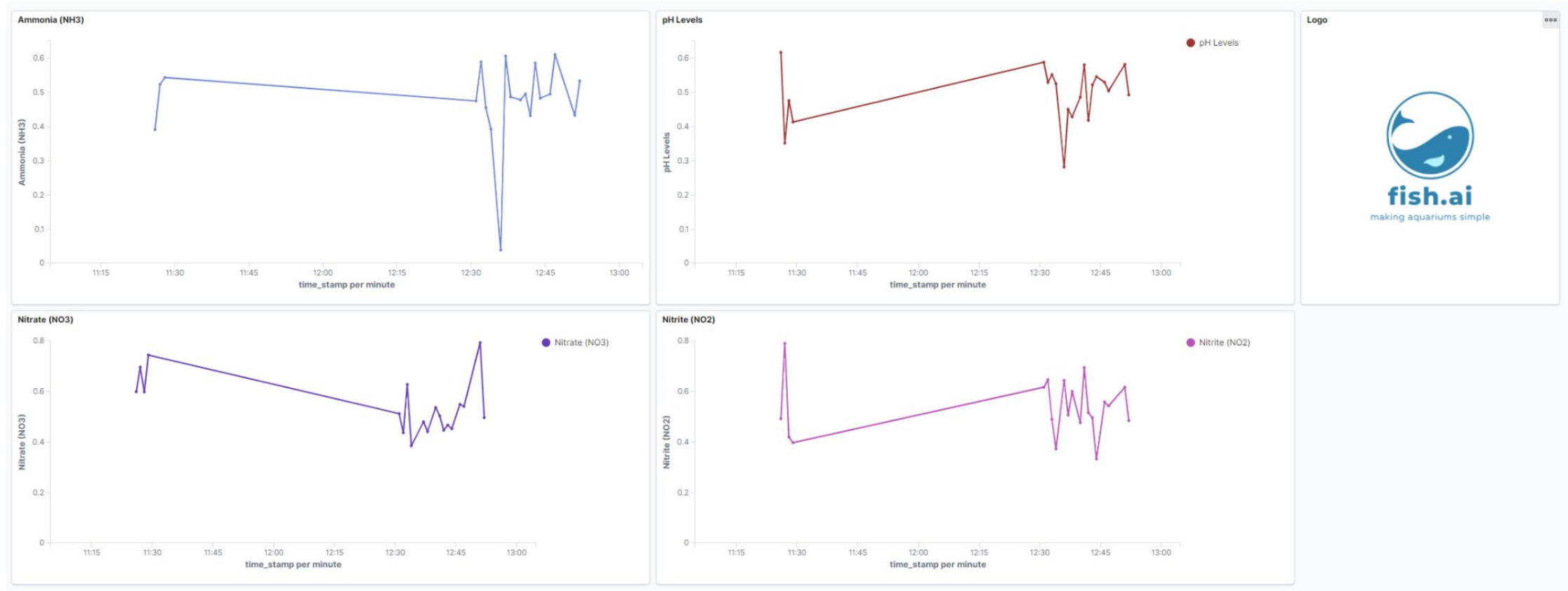
fish.ai is built on **AWS serverless architecture**. CRON jobs are scheduled regularly for constant monitoring of water chemistry sensor data. Levels are automatically checked against safety thresholds and users notified if action is required.



AWS ARCHITECTURE



DASHBOARD DEMO



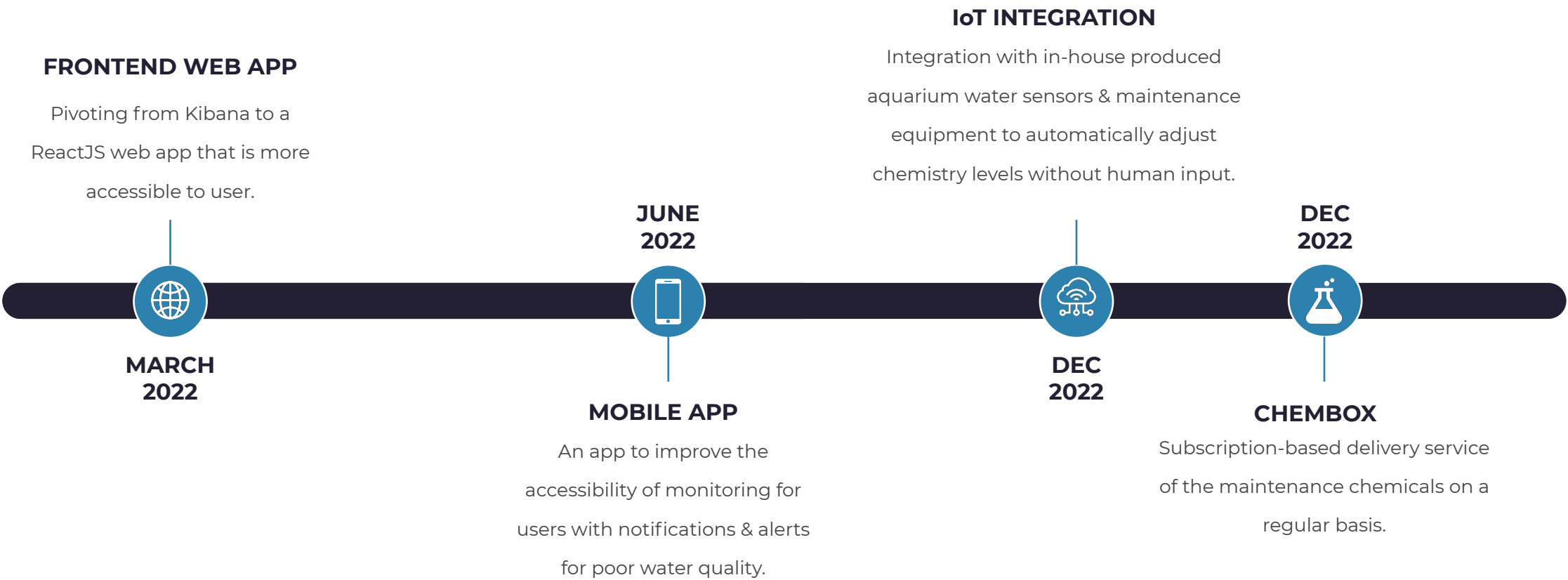
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PRODUCT ROADMAP

The long-term vision for fish.ai is to be an entirely autonomous aquarium maintenance system.



ADDITIONAL FUNCTIONALITY

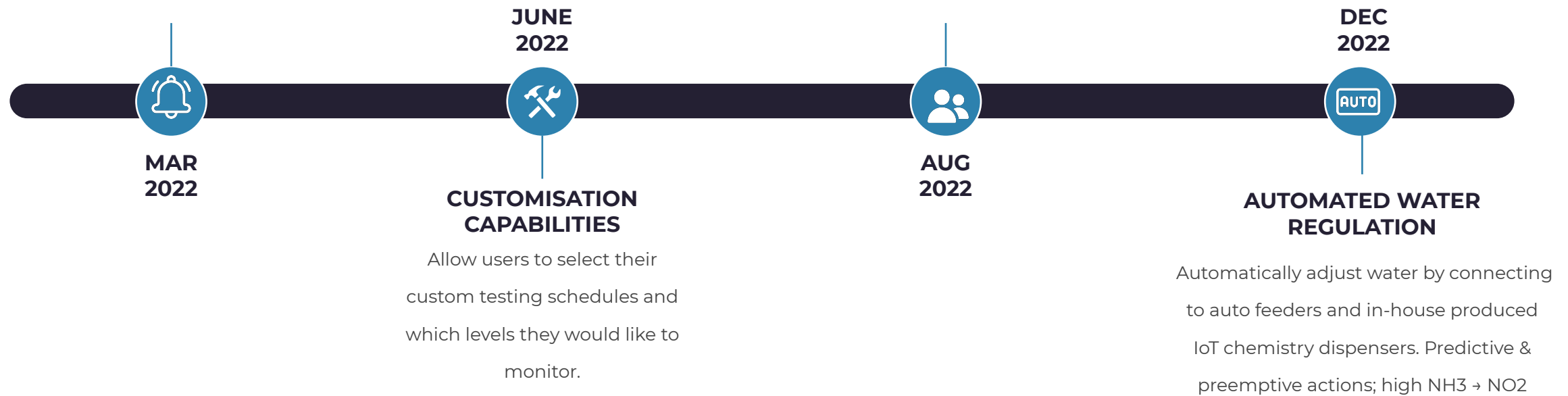
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IN-APP NOTIFICATIONS + ALEXA

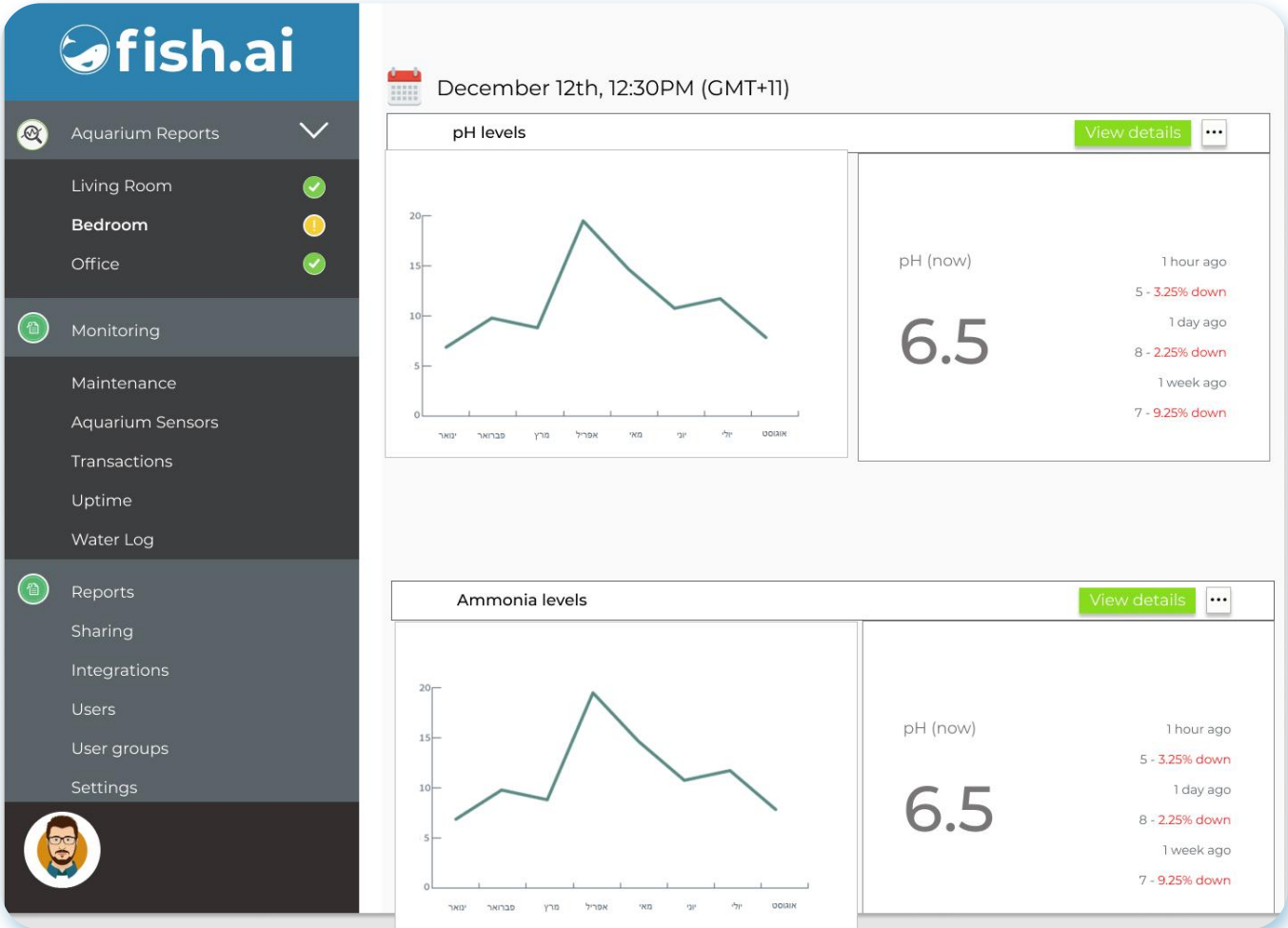
In-app notifications to quickly alert users of abnormal chemical levels. Integration with Alexa to check these chemical levels.

USER AUTHENTICATION

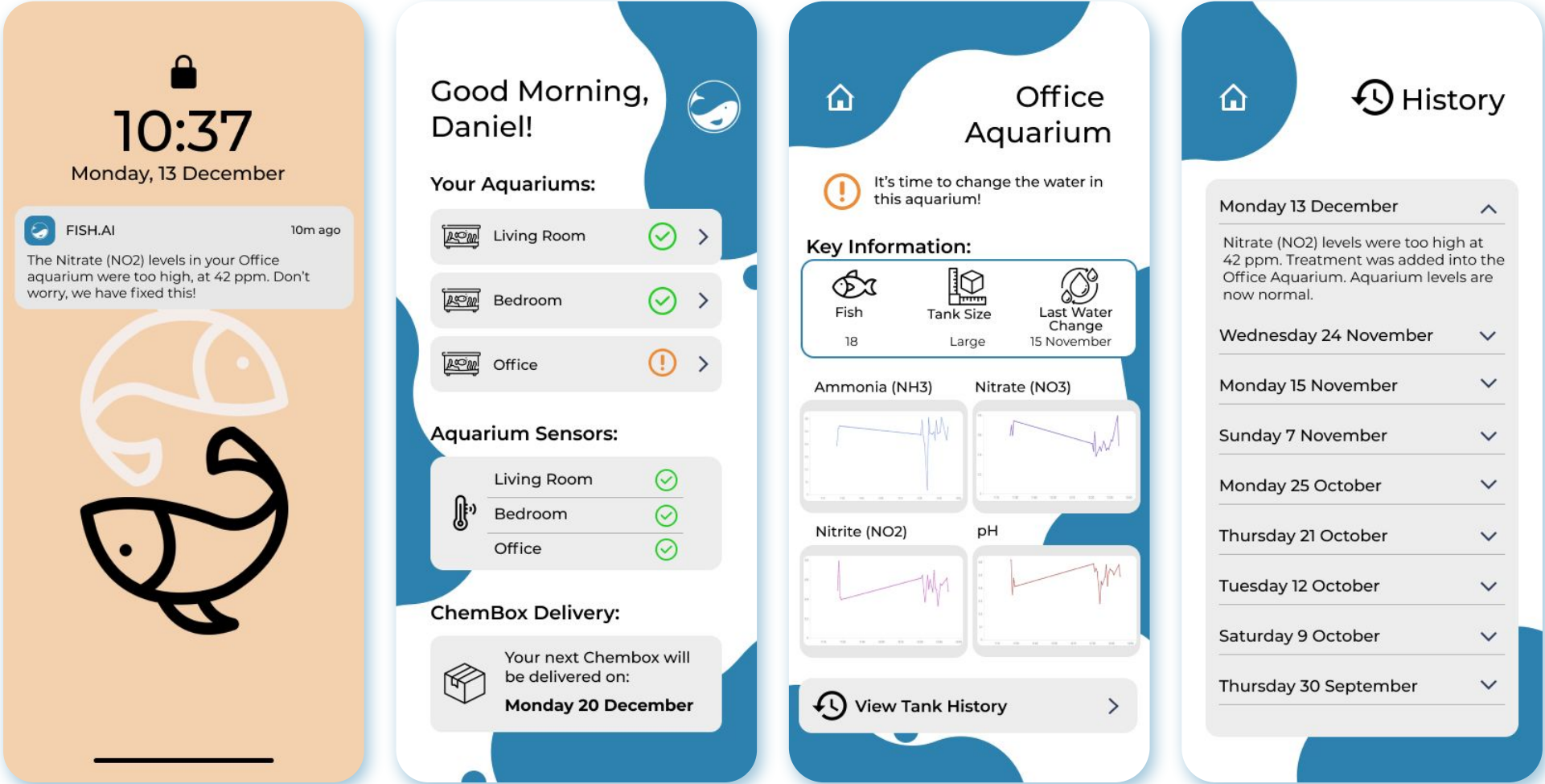
Users profiles allow them to monitor multiple fish tanks, and create custom profiles for different species of fish.



OUR VISION



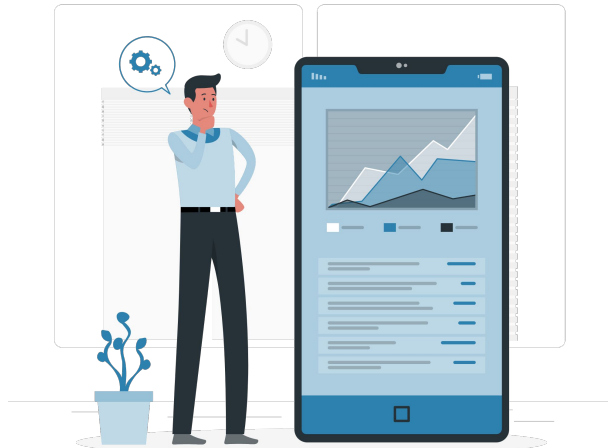
OUR VISION



OUR PROFITABILITY

Subscription Model

Free



Monitoring

Integrate with existing sensors

Paid



Full Integration

- Integration w/ in-house produced IoT aquarium equipment.
- Monthly ChemBox for chemical refills.

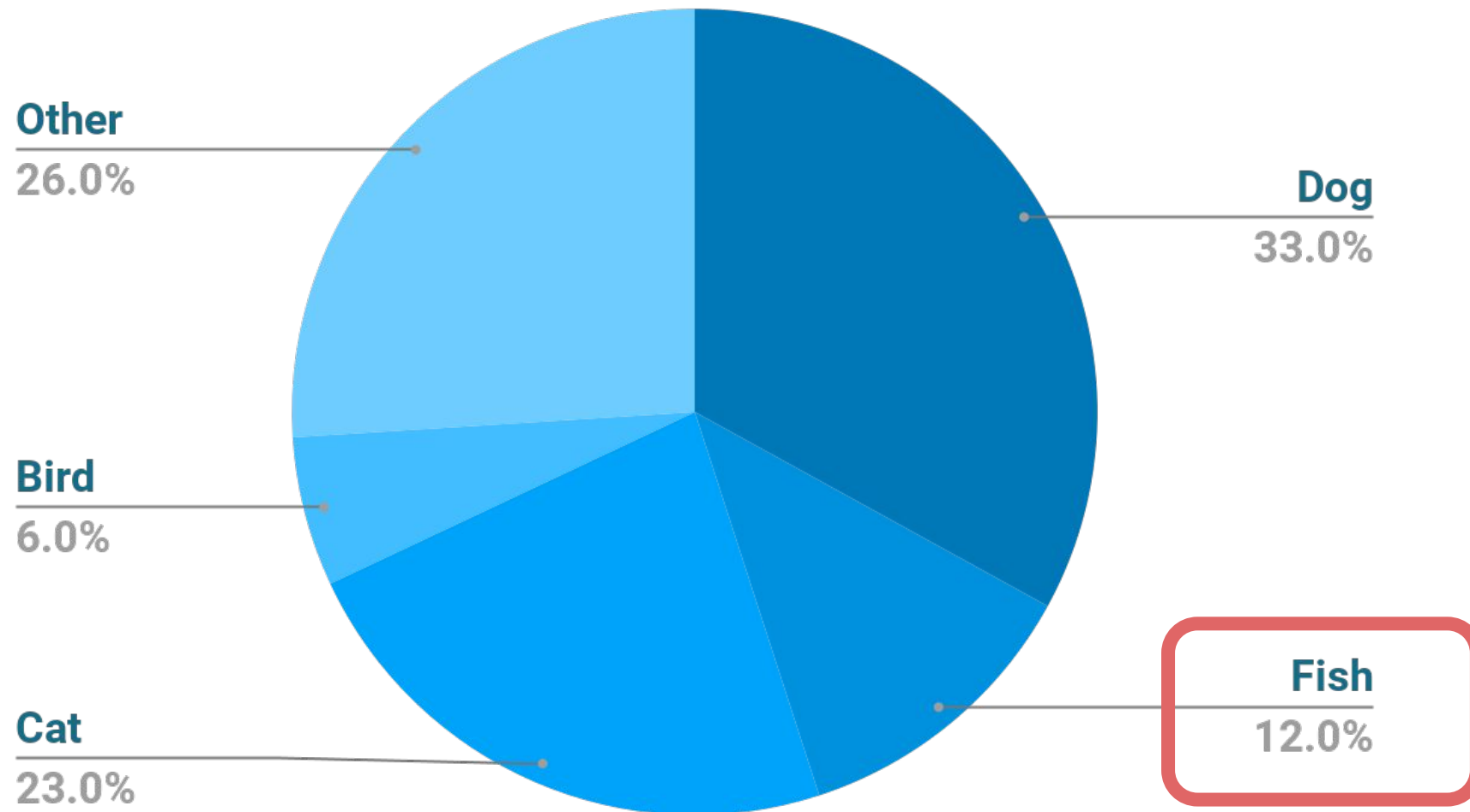
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Let's dive in.

PET POPULARITY



SOCIETAL DEVELOPMENT

MEGATREND: Demographic and Social Change



Millennials



Ageing population



Changing social attitudes



China's rising affluence

ORNAMENTAL FISHERIES

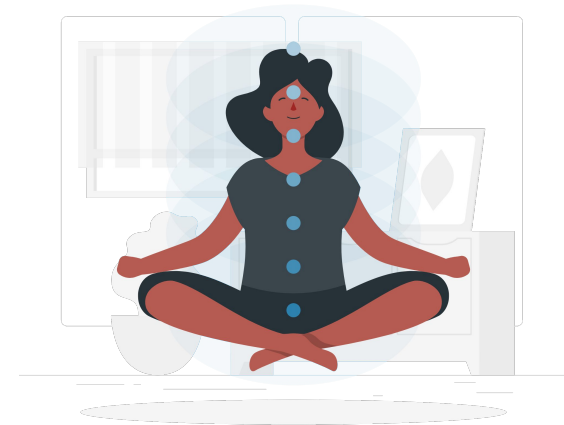
6.8 Billion in 2019 —————> **11.3 Billion in 2025**



Changing Lifestyles

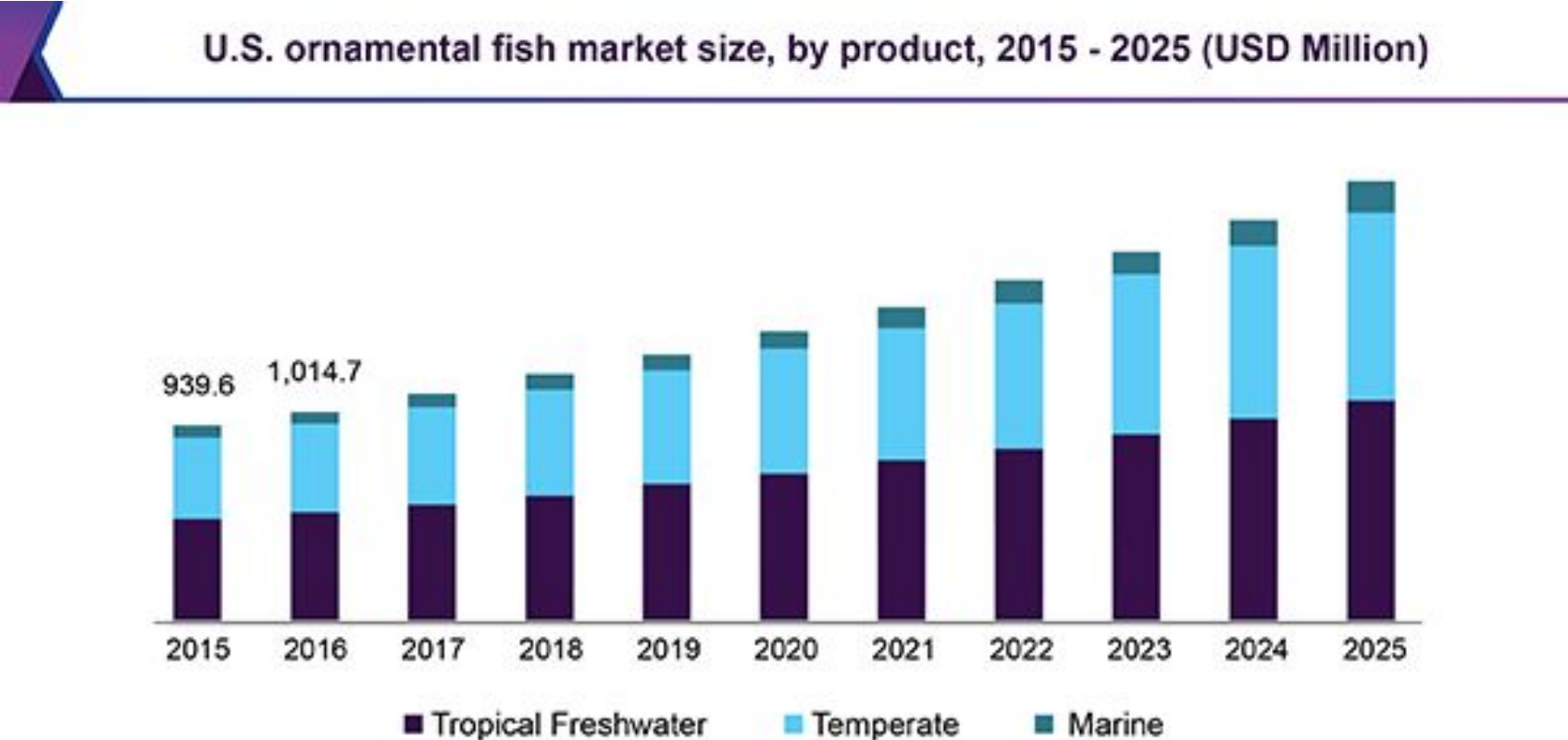


Disposable Income



Stressful Lives

ORNAMENTAL FISH MARKET SIZE (US)

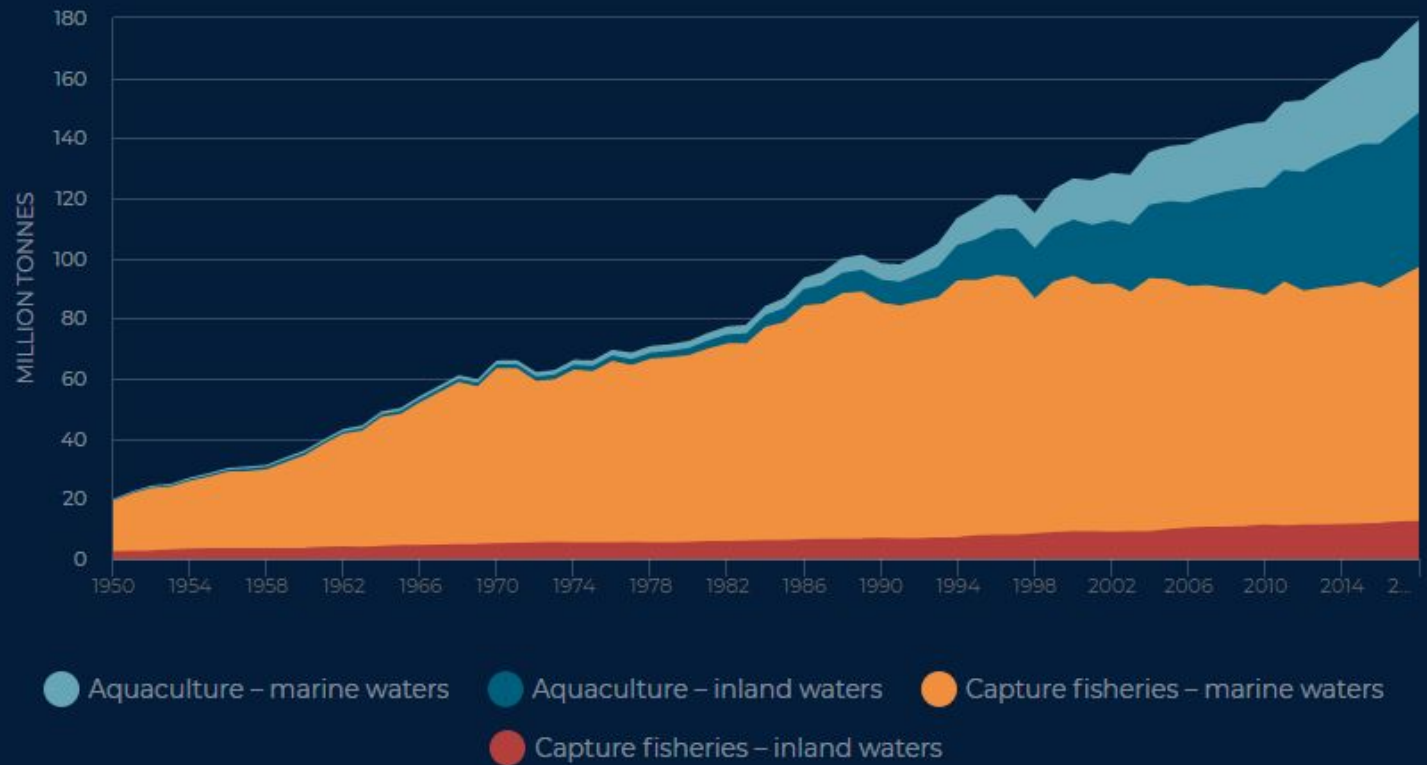


Source: www.grandviewresearch.com

***Future potential
to expand to
commercial
fisheries***

FIGURE 1

World capture fisheries and aquaculture production



Note: Excludes aquatic mammals, crocodiles, alligators and caimans, seaweeds and other aquatic plants

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REFERENCES

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Q&A

ACCENTURE TEAM ONE