INTERNET OF FISH

Realisation of an ultra-low power LPWAN embedded buoy controller for transmitting real-time behavioral data.

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Huge growth in the aquaculture industry

- Increased demand for fish farming sites.
- Farmers move their site further offshore.

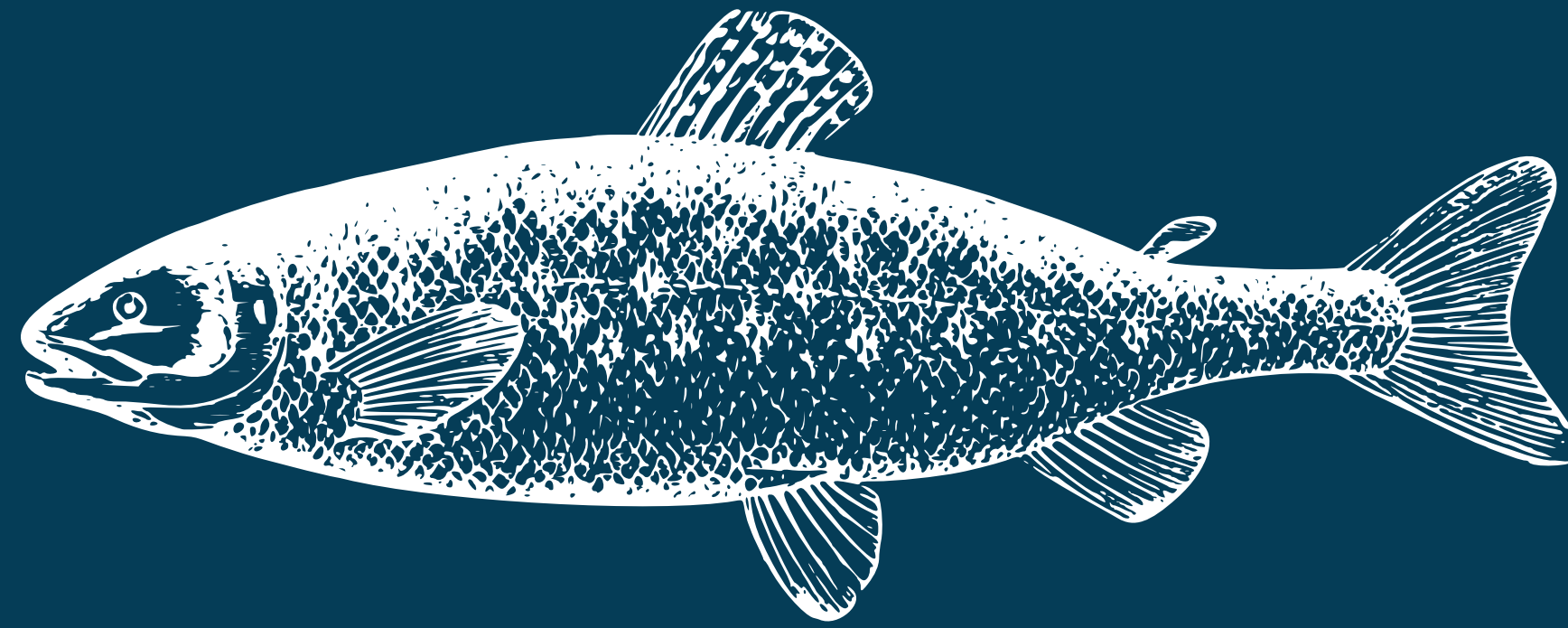Better water qualtiy.
Less impact on the environment.
Less spreading of parasite and desiese.

Harsher conditions.
Limits accessibility and operation.
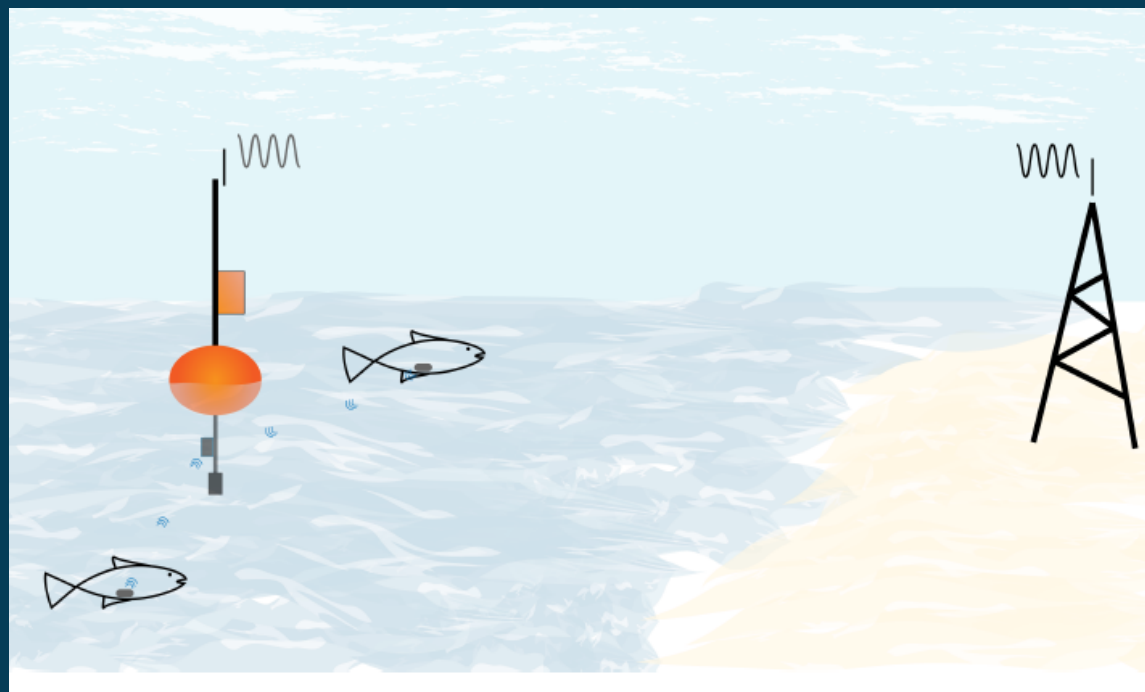Makes it hard for farmer to inspect fish.

It is absolutely vital for farmers to be able to observe the movement of fish as this give valuable insights of the welfare conditions, how they feed and responses to the enviroment.
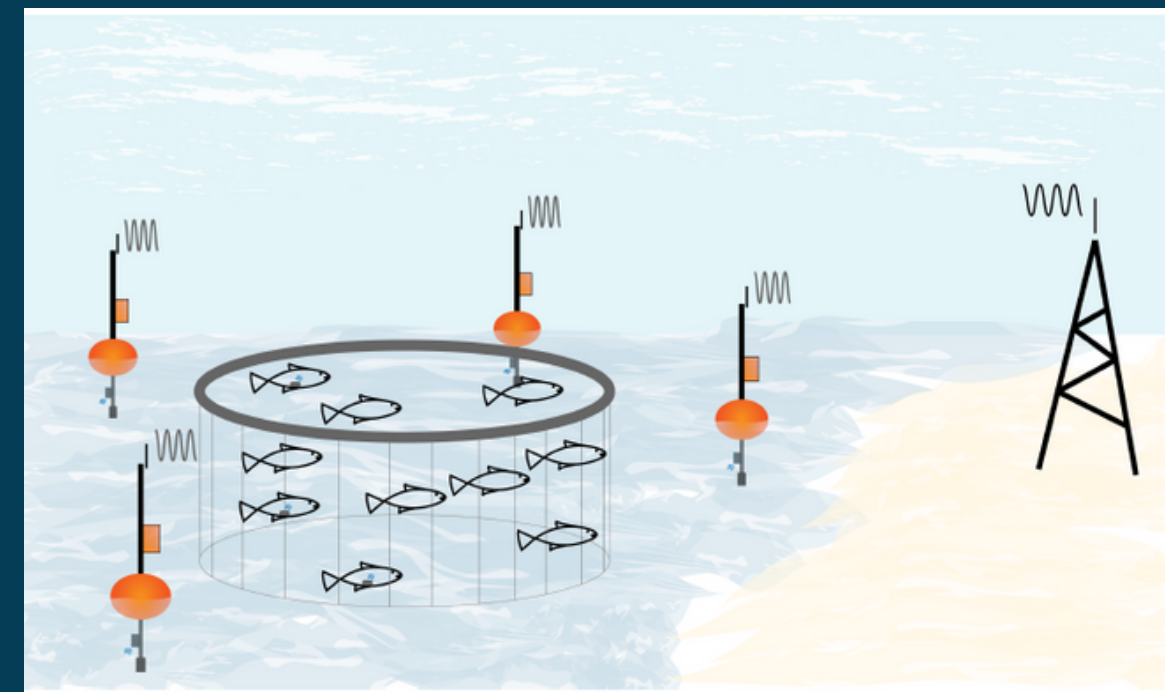
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State-of-the-art solution to monitor fish behaviour data in near real time.
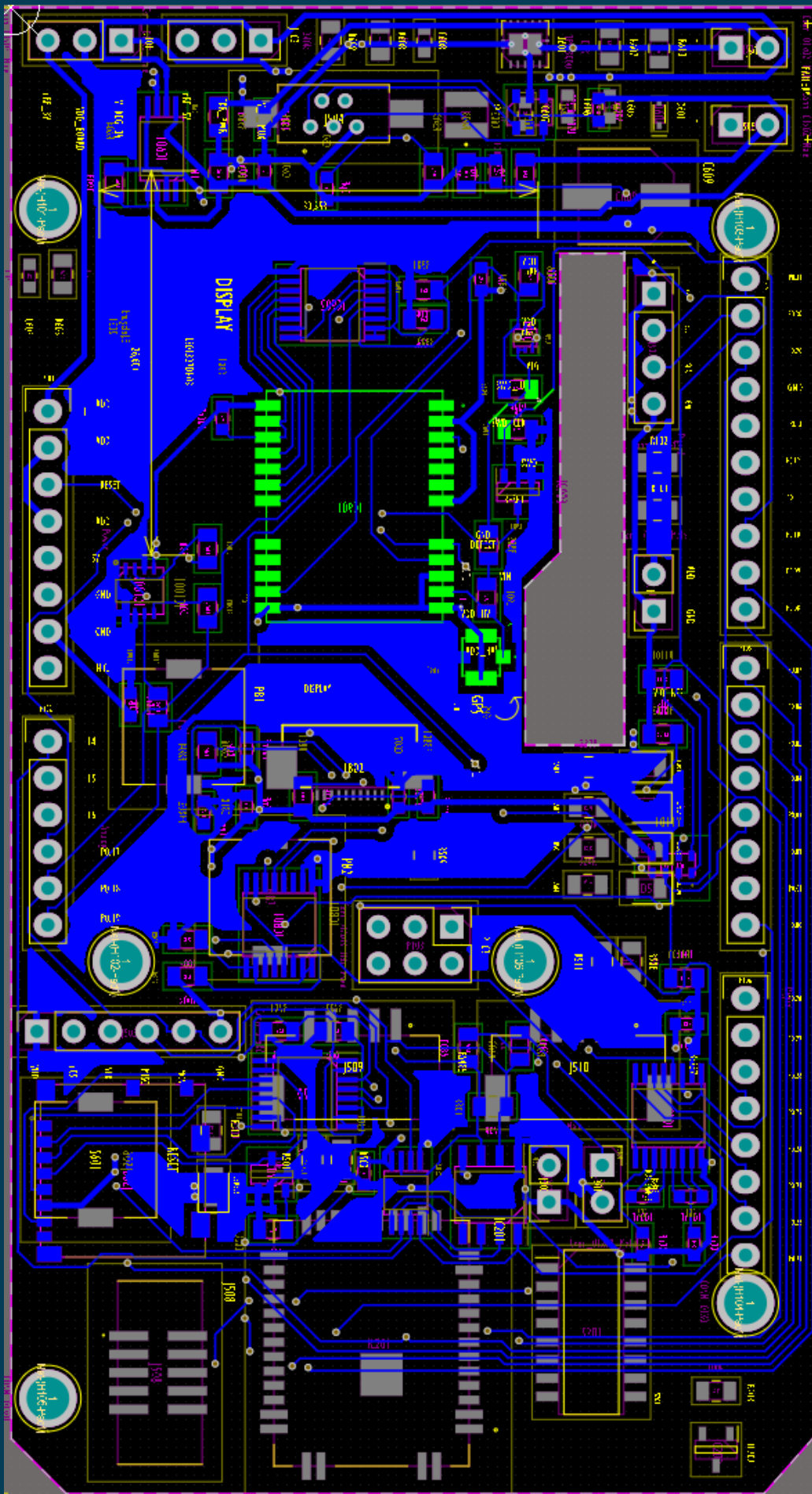
Single buoy deployment

Multi-buoy deployment

Providing migration data of wild fish in near real-time.

Enables behavioural data of fish in fish farms for remote monitoring.

Figure: Eyvind Jølsgard

Eivind Jølsgard: cSLIM shield prototype

Development of a buoy controller responsible for receiving and sending acoustic fish telemetry through internet of things.

Hardware needs to consume minimum power to secure a deployed life-cycle of up to 7 months.

Further work

1. Hardware research
2. Design circuit
3. Design PCB layout
4. Write software
5. Testing

Any questions ?