



How AI from different domains come together  
to improve fish economics and welfare

Get started



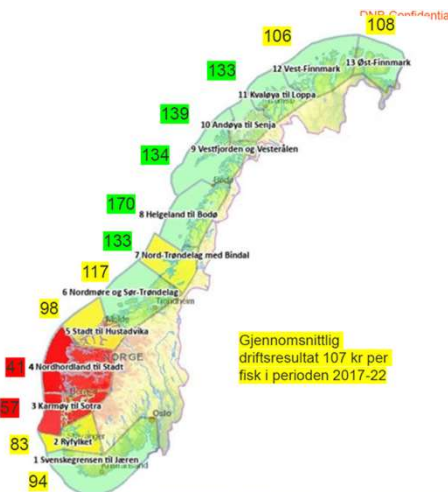
## Driftsresultat per fisk satt i sjøen, målt i kroner (2017-22)

Viktige regionale forklaringsfaktorer  
for ulik lønnsomhet

- Biomassetthet
- Antall selskaper
- Antall lokasjoner
- Men det er også store forskjeller  
mellom selskaper i samme region  
basert på drift

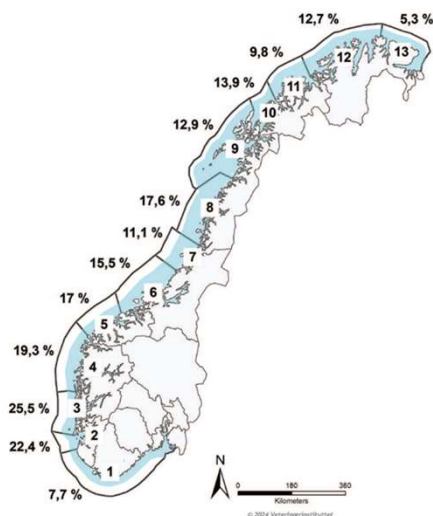
B

Kilde: The Quality Report fra DNB Markets aksjeanalyse



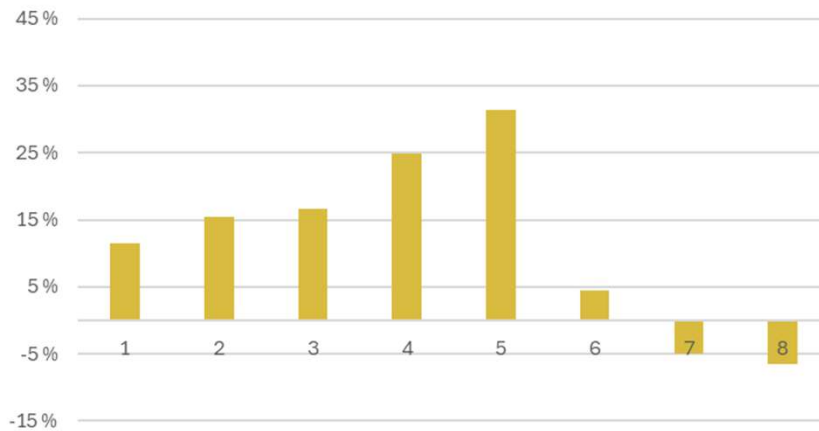
## Large span in

- EBIT
- Mortality
- Lice

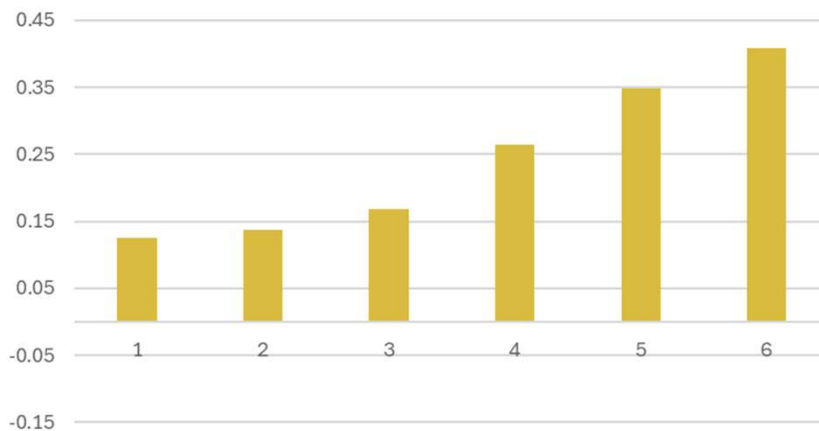




PO 3: Karmøy til Sotra

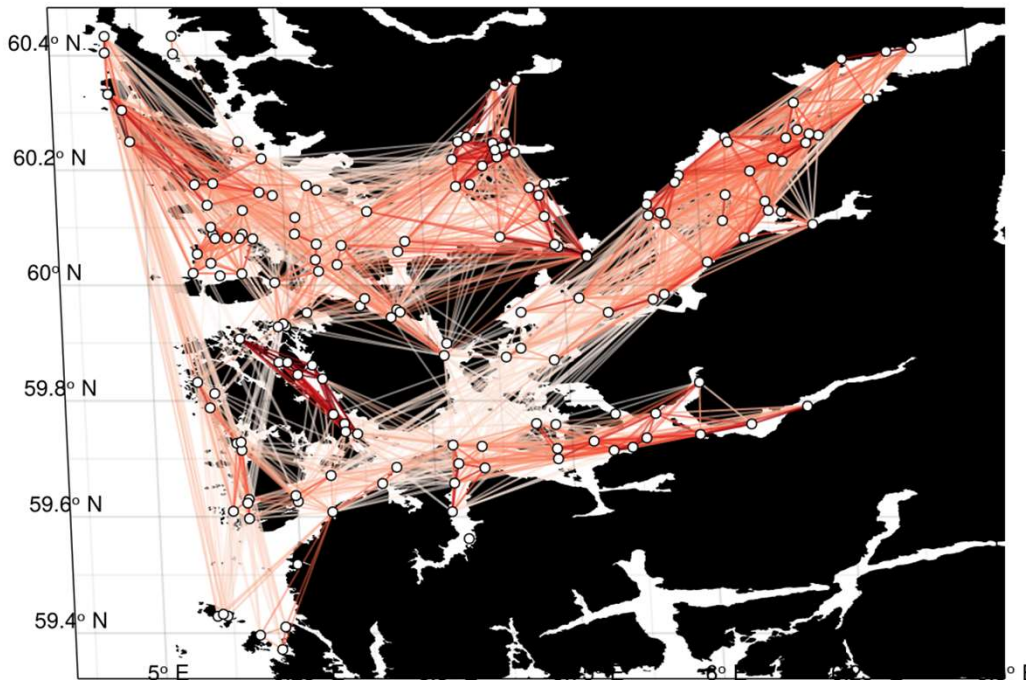


PO 8: Helgeland til Bodø



Large variation in EBIT  
also within  
production areas

Where does this  
difference come  
from?



Nature/geopgrahy?

Some of it is due to  
geography

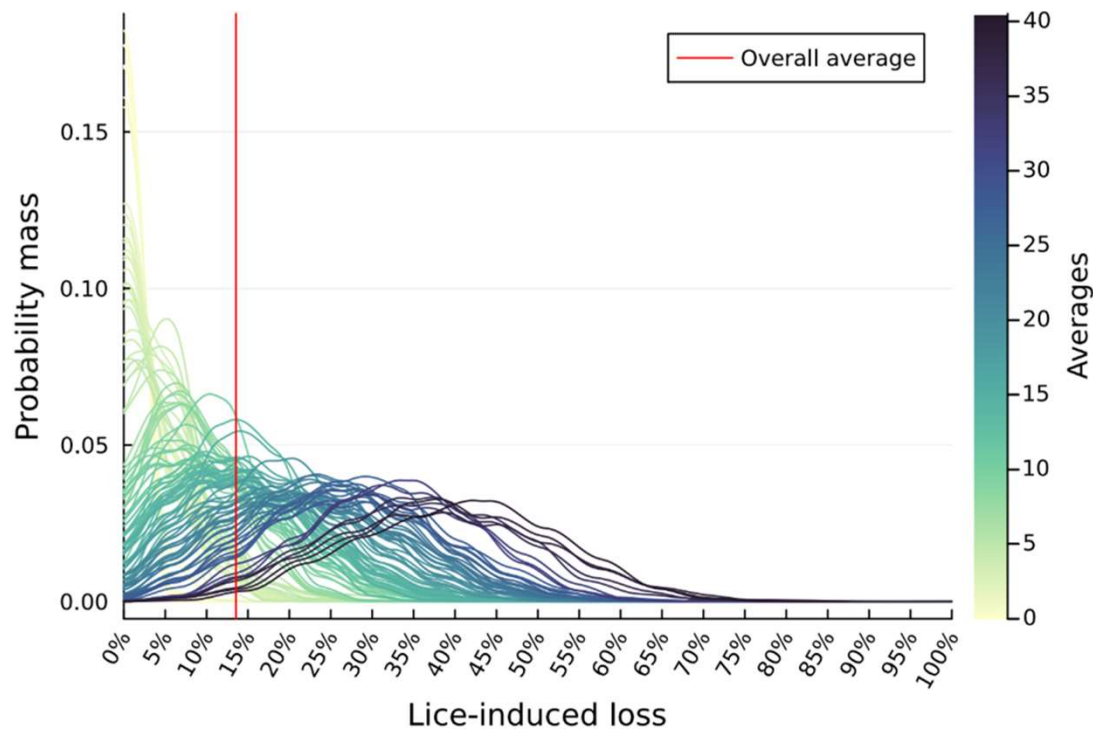
Sites unique  
conditions

+

Site closeness to  
other site



## Loss due to treatment



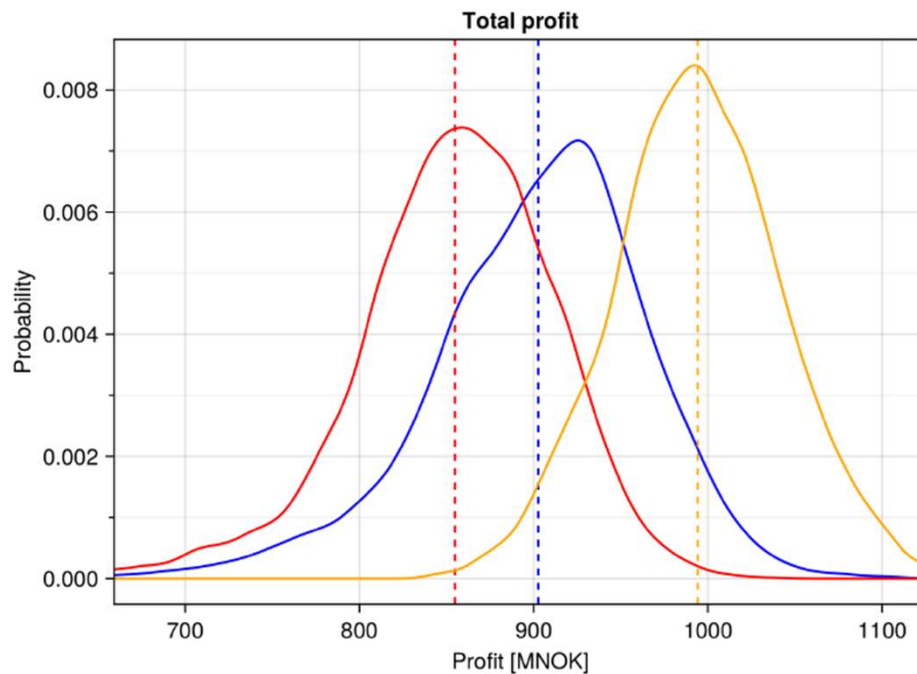
## Choices!

A lot is due to choices from the board room to the cage edge

- Genetics/species
- Feed and feeding
- Equipment
- Wellboat
- Delousing strategy
- **Harvest strategy**
- Stocking strategy



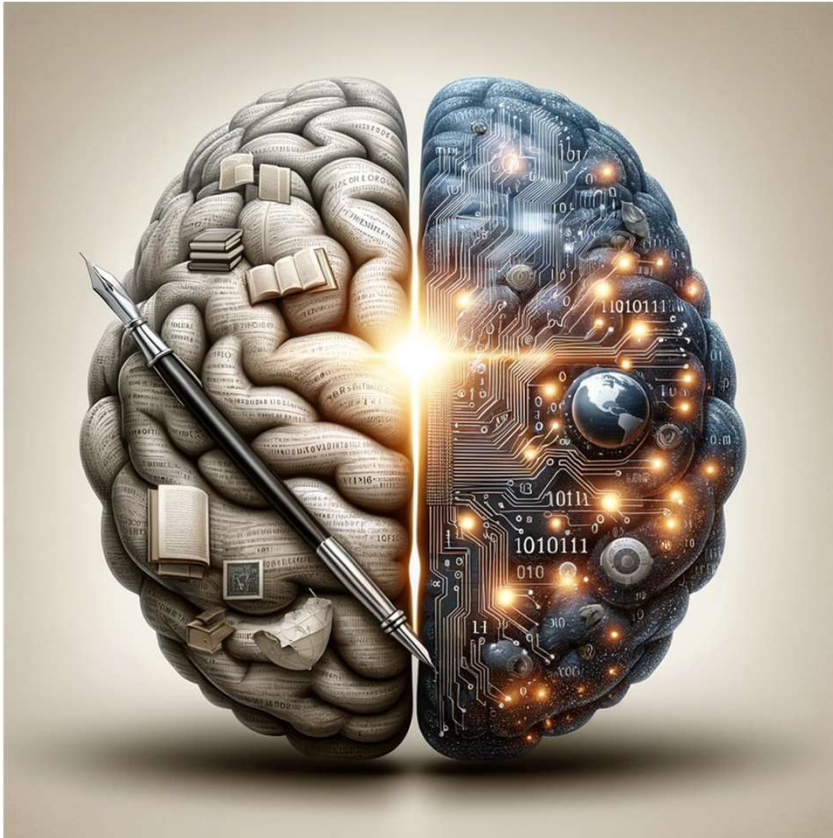
## Different strategies yields different results



Different harvest strategy

+6% larger EBIT with different strategy





How do you  
take good  
choices

Knowledge

+

Data



## Historically: Two main data sources

Decisions



Harvest

Stocking

Treatment



Every 1-2 week

**Luse  
data**

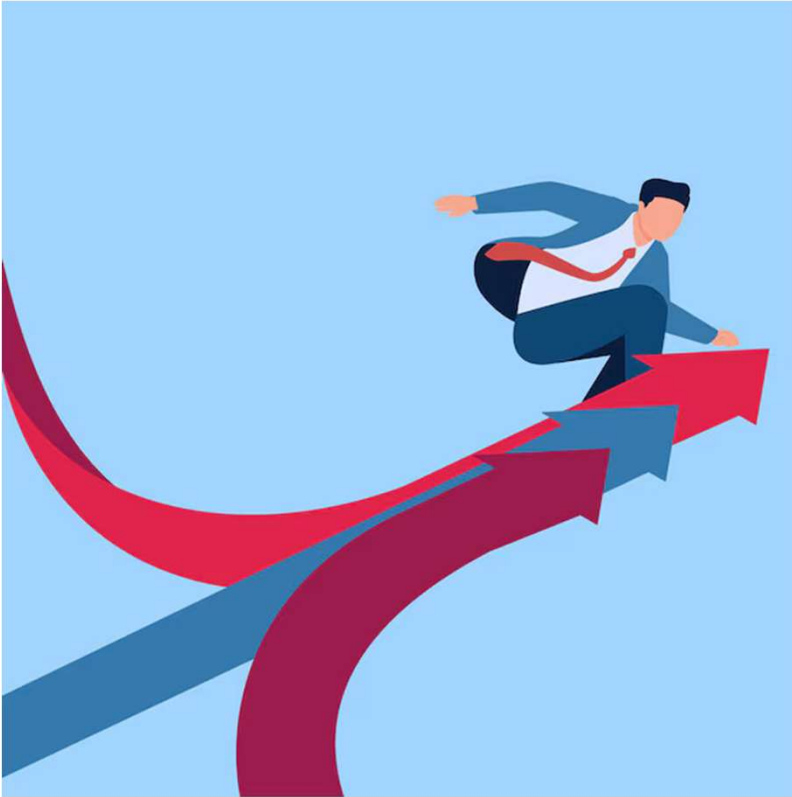


Data

Feeding

Mortality





For 30+ years,  
farmers have relied  
on their **deep  
expertise** to  
effectively manage  
rapid changes and  
uncertainty,  
**consistently making  
good decisions**



## Today: 10+ data sources

Decisions

Harvest

Stocking

Treatment

Every 1-2. week

**Luse  
data**

Ad hoc

Biomass

Lice

Feeding

Mortality

Fish health

Fish health 2.0

Data

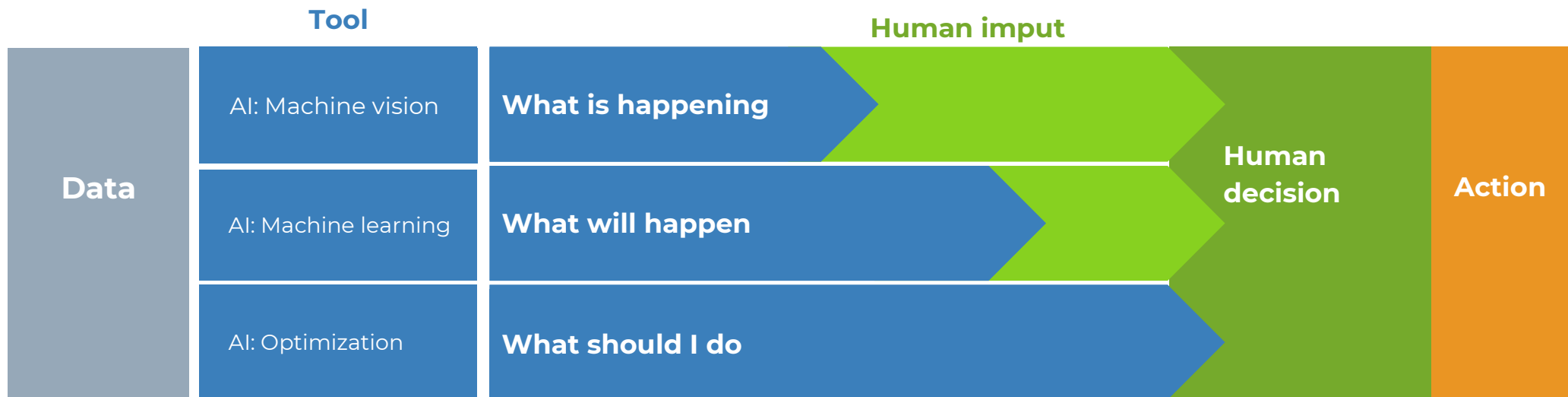
Environment

Market





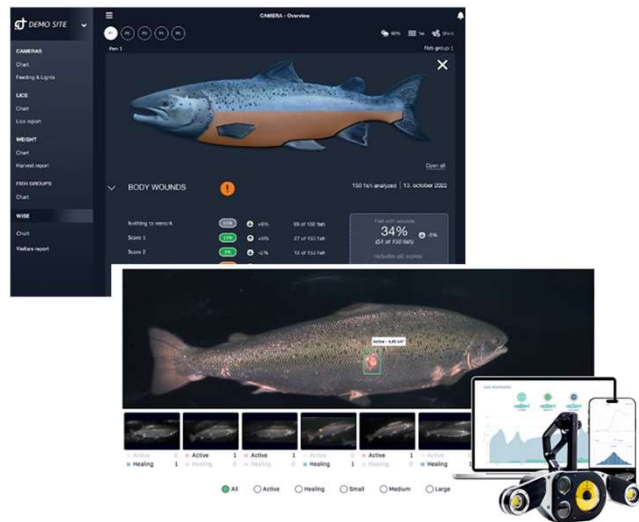
AI can give you **better data** and support you  
in making **better choices**





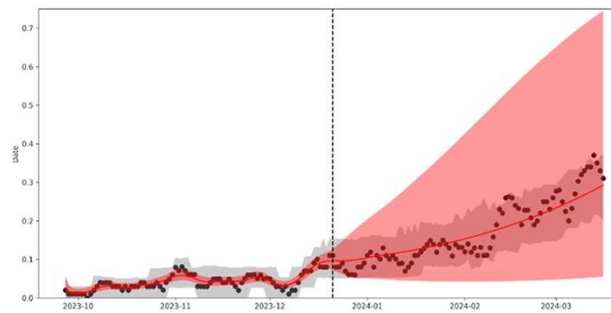
## Observation

AI: Machine vision



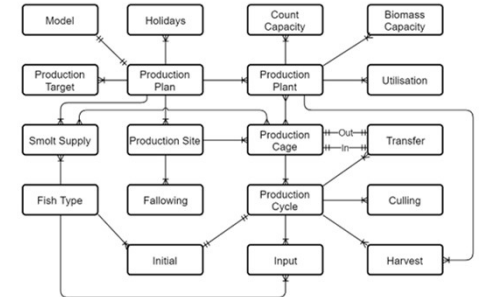
## Forecasting

AI: Machine learning



## Decision

AI: Mathematical optimization





## Forecasting: Wound development

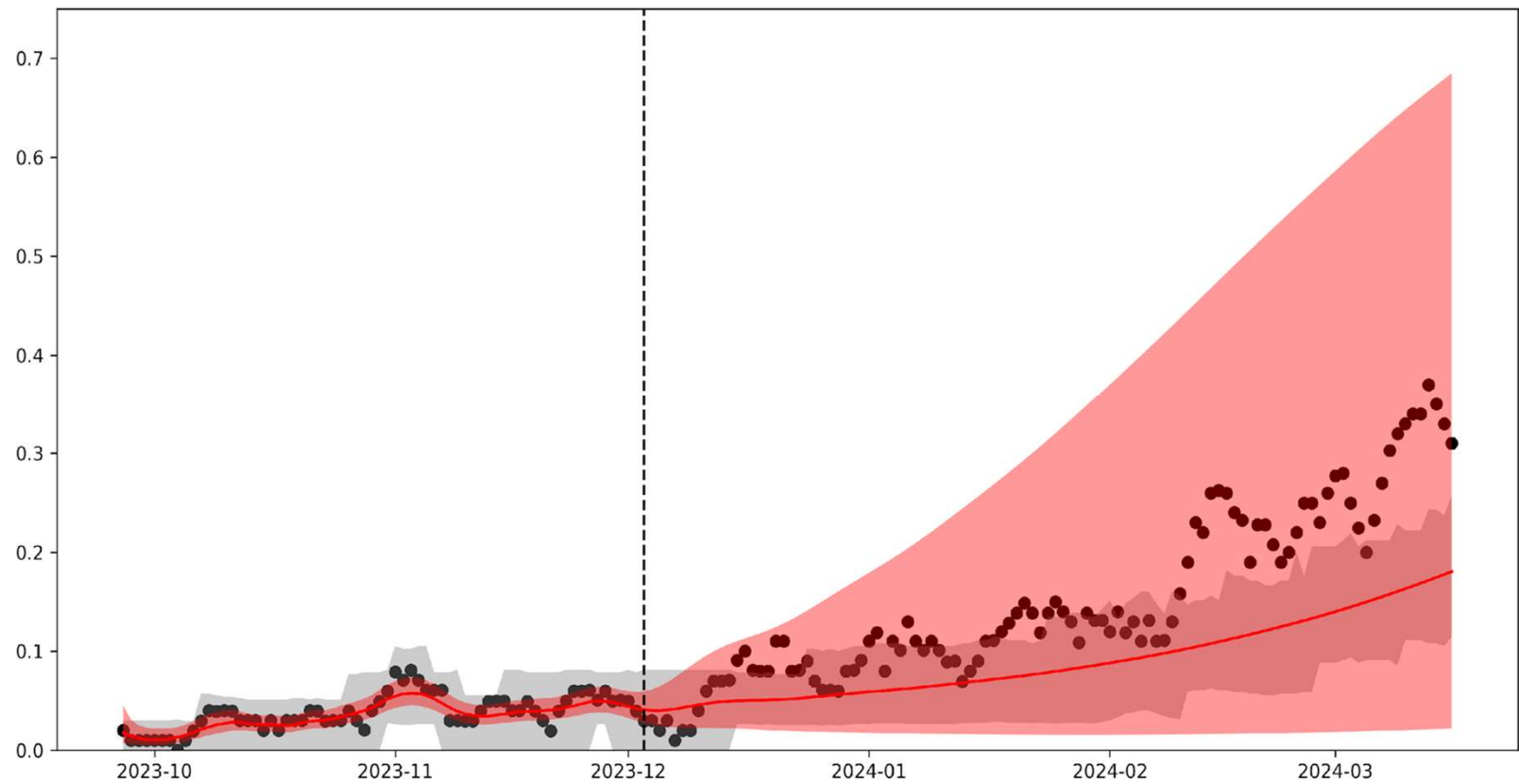
Kameradata

+

Miljødata

+

Produksjonsdata





## Forecasting: Wound development

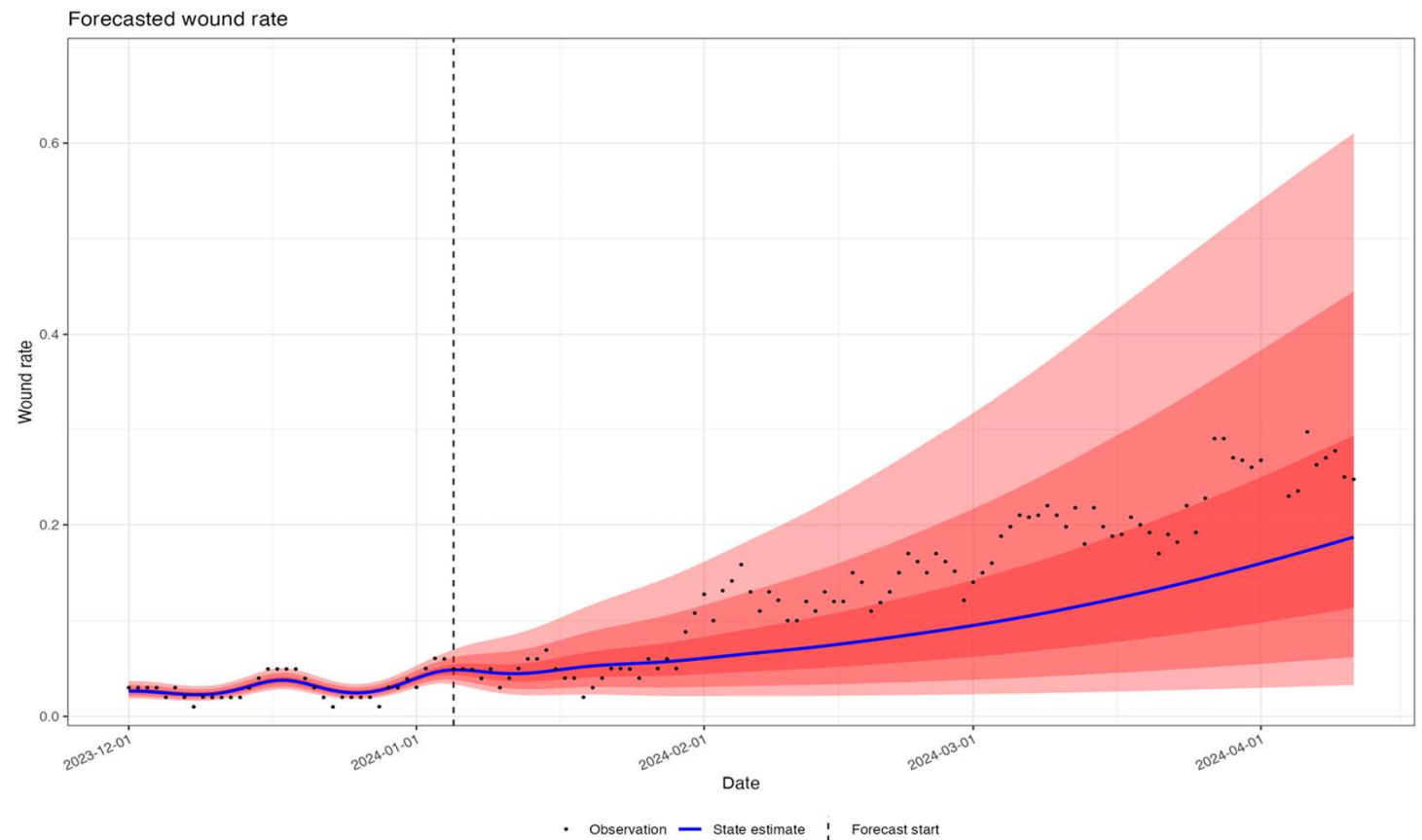
Camera data

+

Environemet data

+

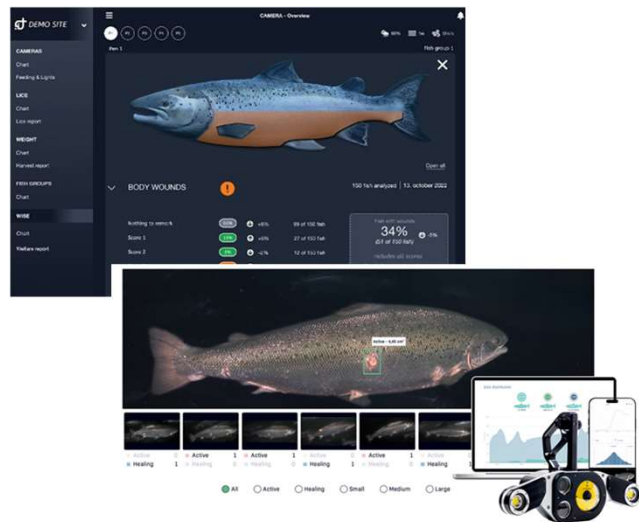
Production data





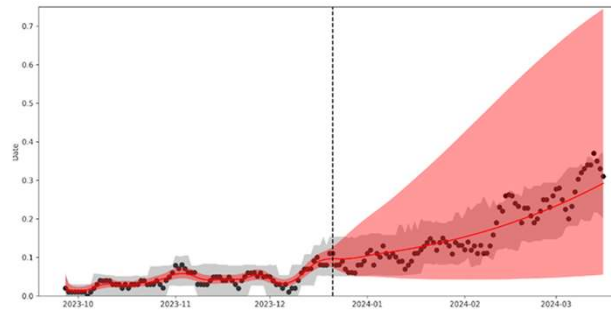
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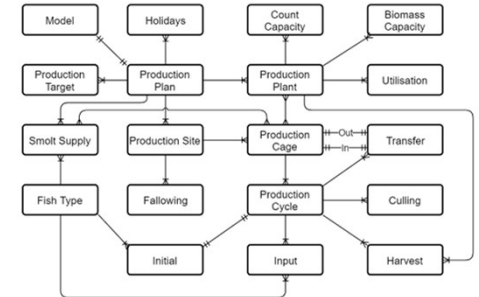
## Forecasting

AI: Machine learning

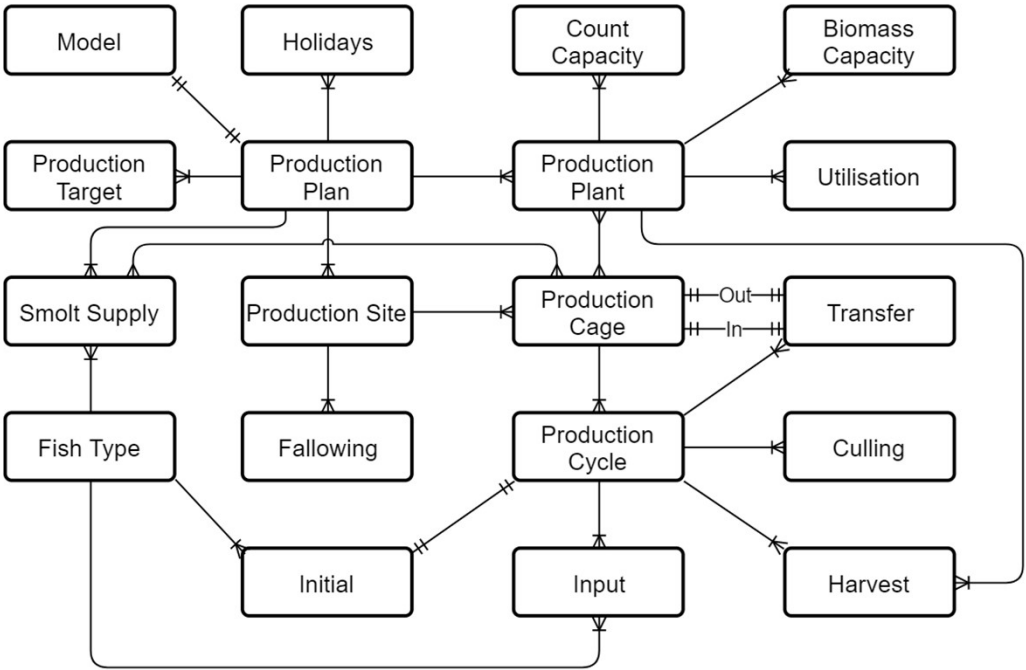


## Decision

AI: Mathematical optimization







+ Biology  
+ Production  
logistics  
+ Economics  
= Decision



## Today: 10+ data sources

Decisions

Harvest

Stocking

Treatment

Every 1-2. week

Luse  
data

Ad hoc



Biomass

Lice

Feeding

Mortality

Fish health

Fish health 2.0

Data

Environment

Market





## Today: 10+ data sources

Decisions

Harvest

Stocking

Treatment

Every 1-2. week

**Luse  
data**

Ad hoc

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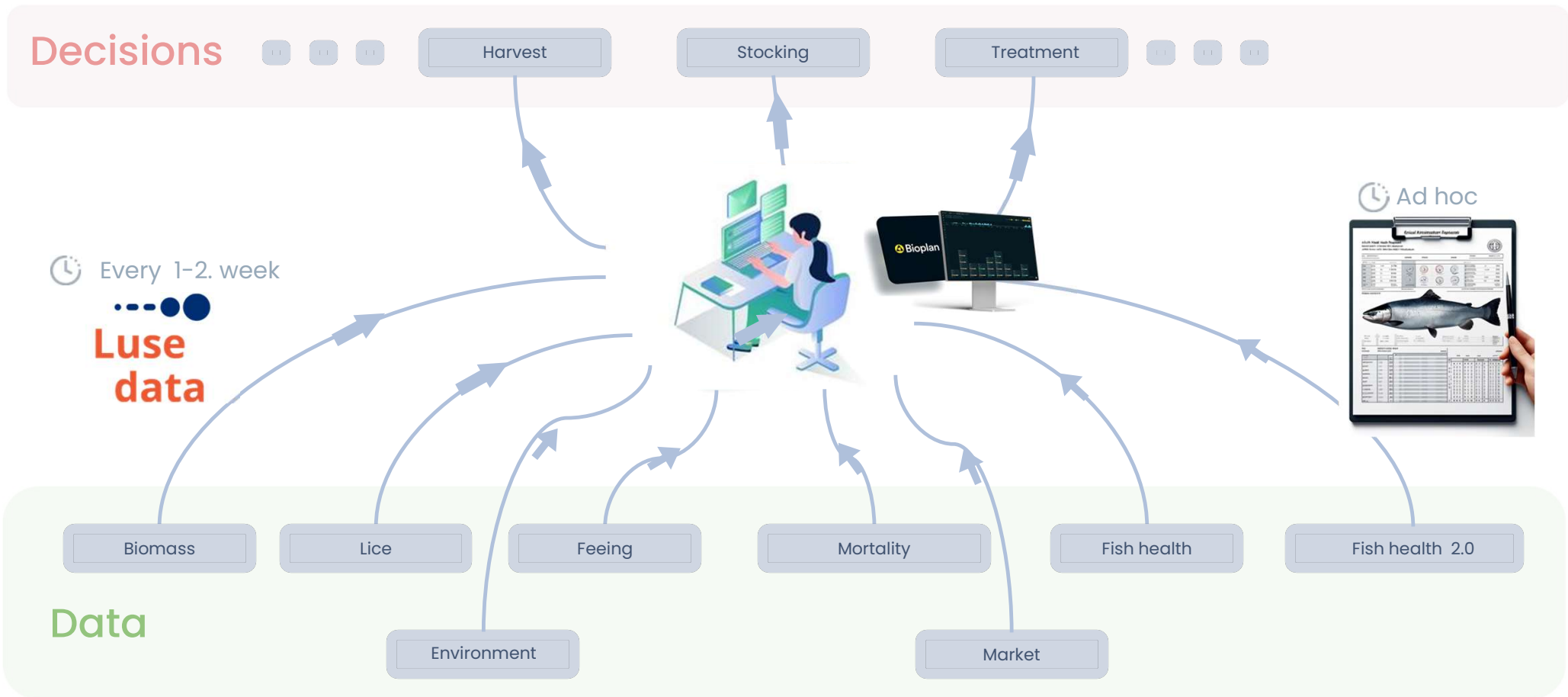
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Data

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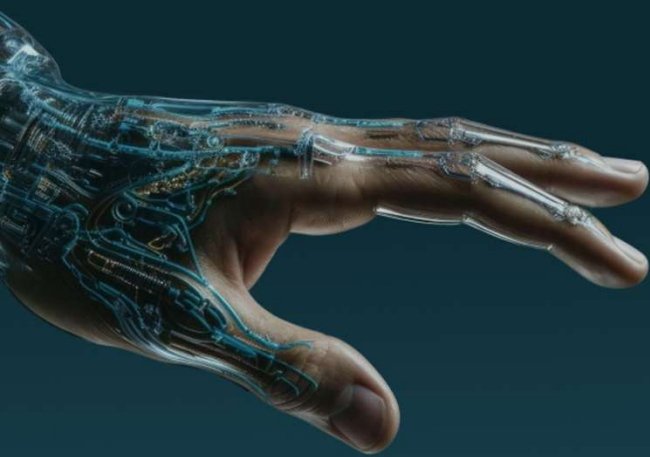




FARM YOUR BEST FISH

Giving planners  
superpowers

Optimize now



## They trust us

We support these companies on their mission to run the most profitable farming operation.



CERMAQ

HOFSETH



Fii  
ZK



NORDLAKS

