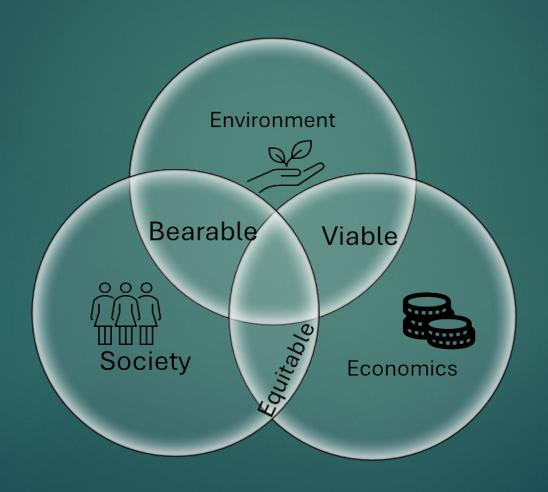
A Blue Economy view on Salmon Farming Priorities for Fish Health Research



Marine Directorate

- What is the Marine Directorate?
 - SG Directorate responsible for integrated management of Scotland's seas
 - ▶ Marine Environment, Marine Economy & Communities, Corporate, Operations and SEDD
- Science Evidence Data and Digital SEDD
 - Science and analysis in support of MD functions
 - Renewables and ecology
 - Marine fisheries
 - ► Climate change, biodiversity and ecosystems
 - ▶ Marine Analytical Unit

Science linked to Aquaculture

- Aquaculture, Fish Health and Biosecurity
 - ► Fish Health Inspectors
 - Diagnostics
 - Biosecurity
 - Aquarium



- Salmon ecology and monitoring
- Aquaculture Interactions with wild fish
- Aquaculture Official Statistics





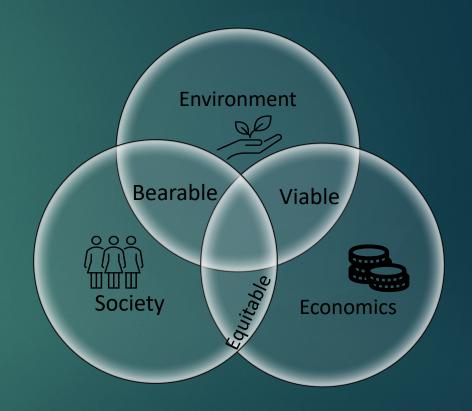


- Many other areas
 - ▶ HAB, Oceanography, offshore wind farms data



Policy and Legal Drivers

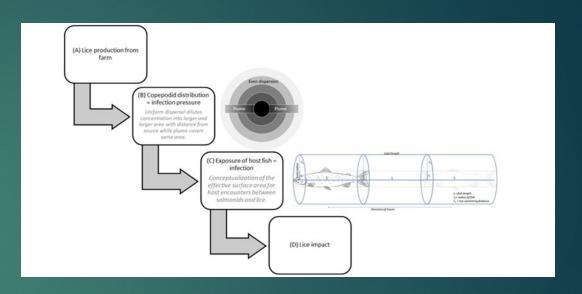
- Control of Notifiable and Emerging Diseases
 - ▶ Disease of Fish Act 1937
 - ► Aquatic Animal Health (Scotland) Regulations 2009
- Farmed Fish Health Framework 2018
 - Mortality, climate change and treatment
- Scottish Wild Salmon Strategy 2020
- ▶ Blue Economy 2020
- Sea Lice Risk Assessment Framework 2024



- Rural Affairs and Islands Committee of the Scottish Parliament
 - ► Follow up report 2025

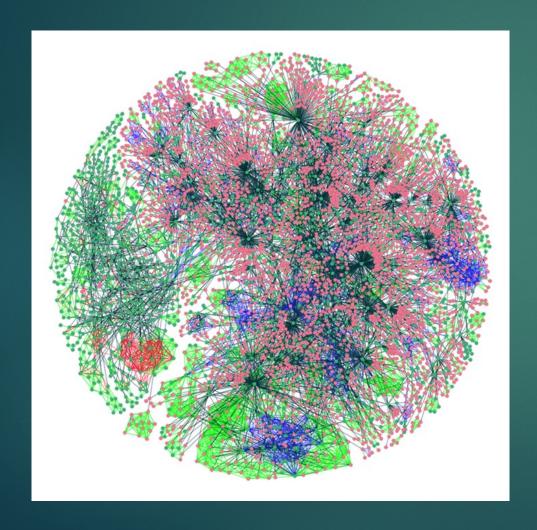
Examples of science to address drivers

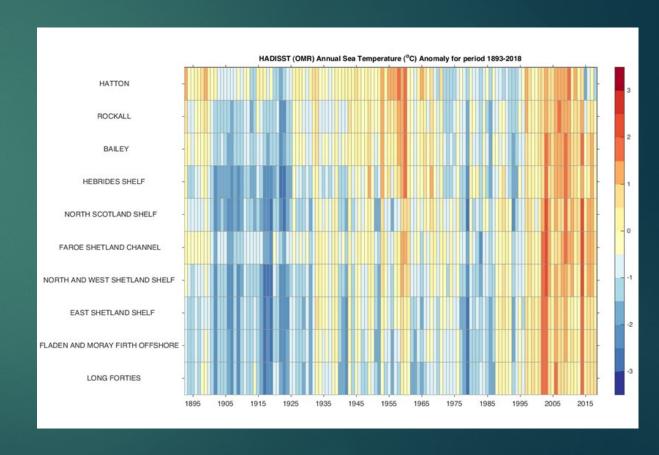
- ► Emergence and spread of disease
- Reduction of mortality
- Sea lice
- Cleaner fish
- Data and data presentation
- Climate change and diseases
- ▶ Harmful Algal Blooms





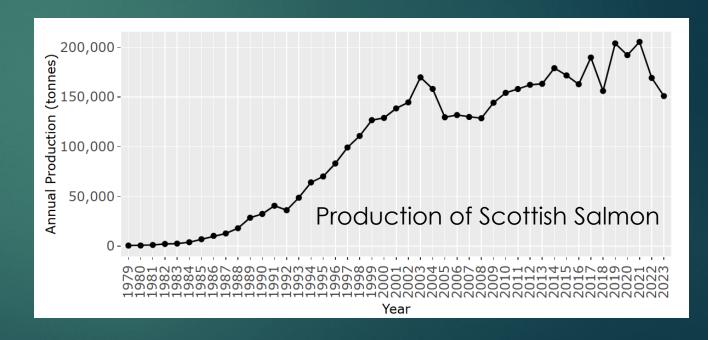
Reducing Disease Spread and Impacts in Aquaculture in a complex and changing environment





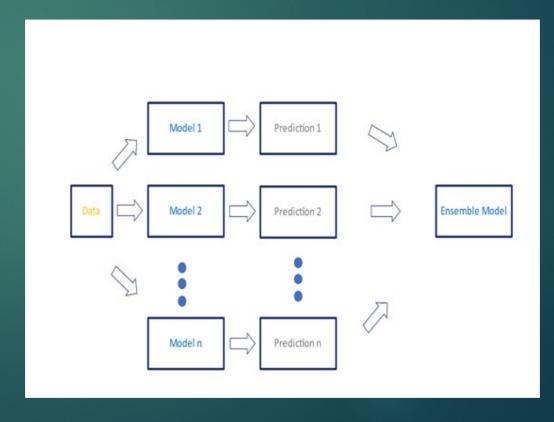
Resources

- Data
 - ▶ Data sets such as Scotland's Aquaculture Website
 - ► FHI reports
 - ▶ Fieldwork data
 - Network data
 - Official Statistics
- Aquaria and Labs
- Vessels
- ▶ Links to government policy
 - Application



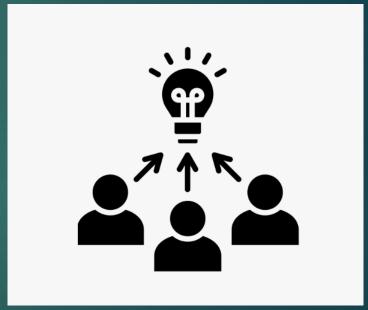
Models of collaborative approach

- Salmon Parasites in Linnhe Lorne and Shuna (SPILLS)
- Salmon Aquaculture Validate for Ecotoparasite Dispersal (SAVED)
- Gap Analysis
- Work with partners:
 - ► Industry
 - Academic
 - ► FMS



Areas of Research Interest

- The Marine Directorate is preparing an Areas of Research Interest Report
- Chief Scientist Marine Mark Inall
- Report still in development
- Consultations on Marine and on Freshwater ARI
- In development



Conclusion

- ▶ SG supports sustainable aquaculture growth in a Blue Economy
 - Optimizing balance of stakeholder interests
- **▶** This requires informed policy
- ▶ SEDD provides scientific advice
 - Own work
 - Collaborations
 - Commissioned reviews
- Networking is critical

