Edgar Brun
Director
Dep of Aquatic Animal Health and Welfare

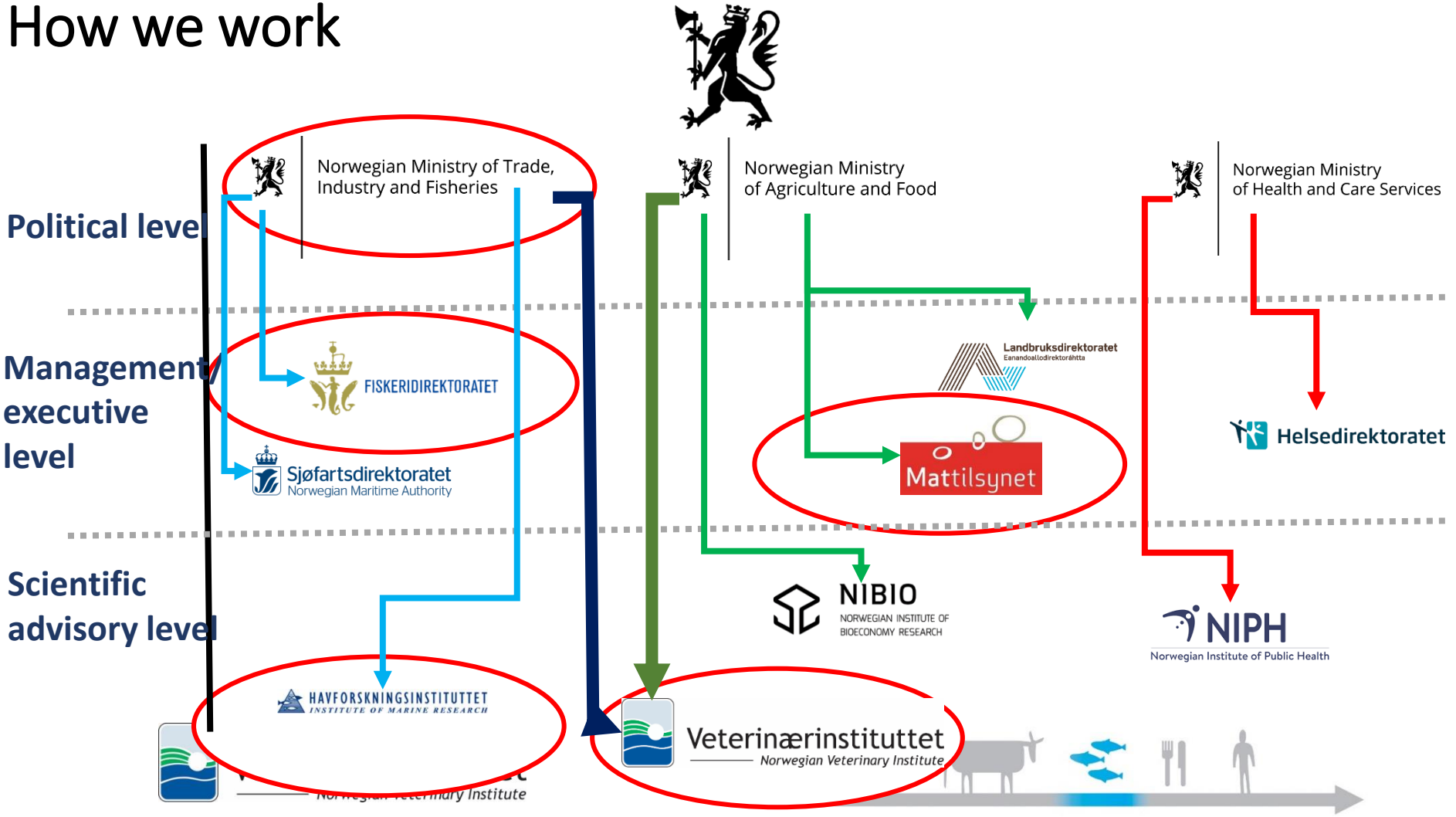
Veterinærinstituttet
Norwegian Veterinary Institute

Outline

- Role/mandate
- Example
- Action
- Implication
- Lesson learned
- 5 minimum emergency preparedness response requirements

Veterinærinstituttet
Norwegian Veterinary Institute

How we work


Political level
Management / executive level
Scientific advisory level
Norwegian Ministry of Trade, Industry and Fisheries
Norwegian Ministry of Agriculture and Food
Norwegian Ministry of Health and Care Services
FISKERIDIREKTORATET
Sjøfartsdirektoratet
Norwegian Maritime Authority
Landbruksdirektoratet
Mattilsynet
Helsedirektoratet
NIBIO
NORWEGIAN INSTITUTE OF BIOECONOMY RESEARCH
NIPH
Norwegian Institute of Public Health
HAVFORSKNINGSINSTITUTTET
INSTITUTE OF MARINE RESEARCH
Veterinærinstituttet
Norwegian Veterinary Institute

New diseases in aquatic animals - contingency plan

Statens tilsyn for planter, fisk, dyr og næringsmidler

Mattilsynet

Nye sykdommer hos akvatiske dyr – faglig beredskapsplan

Forskrift om drift av akvakulturanlegg (akvakulturdrift...

Innholdsfortegnelse

0 Endret ved forskrift 19 april 2018 nr. 673.

§ 7. *Beredskapsplan*

Det skal til enhver tid foreligge en oppdatert beredskapsplan. Ved samdrift skal det foreligge en felles beredskapsplan.

Beredskapsplanen skal bidra til å ivareta smittehygiene og fiskevelferd i krisesituasjoner. Den skal blant annet gi oversikt over smittehygieniske og dyrevernmessige tiltak som er aktuelle å iverksette for å hindre og eventuelt håndtere akutt utbrudd av smittsom sykdom og massedød, herunder opptak, behandling, transport, maksimum oppholdstid for fisk i rørsystemer ved systemsvikt, slakting og destruksjon av syke og døde akvakulturdyr.

Beredskapsplanen skal videre gi oversikt over tiltak for å hindre og eventuelt håndtere dødelighet ved skadelige alge- og manetforekomster, levemiljøforhold som er uforenlig med artens krav og akutt forurensning.

Beredskapsplanen skal også inneholde oversikt over hvordan rømming kan oppdages, begrenses og gjenfangst effektiviseres, herunder forholdsregler ved sleping av merder og håndtering av fisk og merder under lasting og lossing.

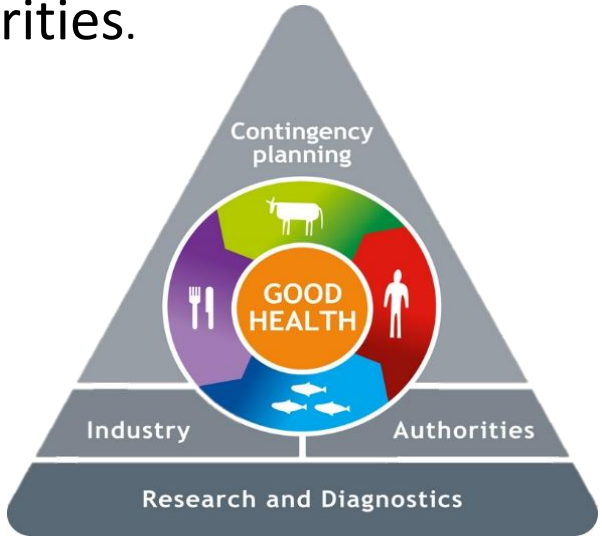
0 Endret ved forskrift 18 des 2009 nr. 1705 (i kraft 1 jan 2010).

Veterinærinstituttet
Norwegian Veterinary Institute

The Norwegian Veterinary Institute

- a research institute in the areas of animal health, fish health and food safety, whose primary function is supply of research-based knowledge support to the authorities.

- Diagnostics /analyses
- Scientific advisory support (Authorities and industry)
- Risk assessments
- Surveillance - preparedness
- Research
- Documentation of national health situation
- Welfare

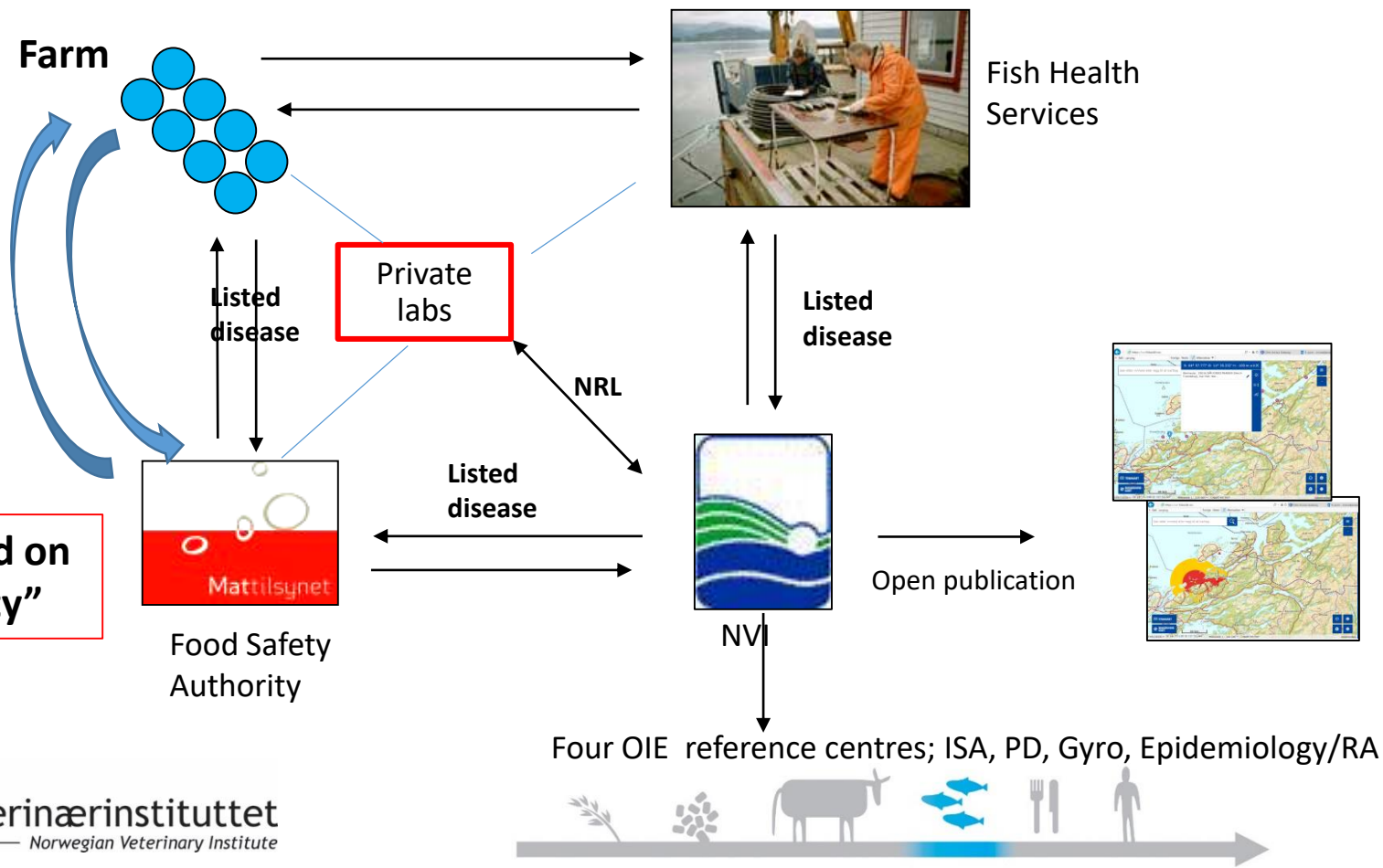


Veterinærinstituttet
Norwegian Veterinary Institute

Public-private partnership in disease diagnostics

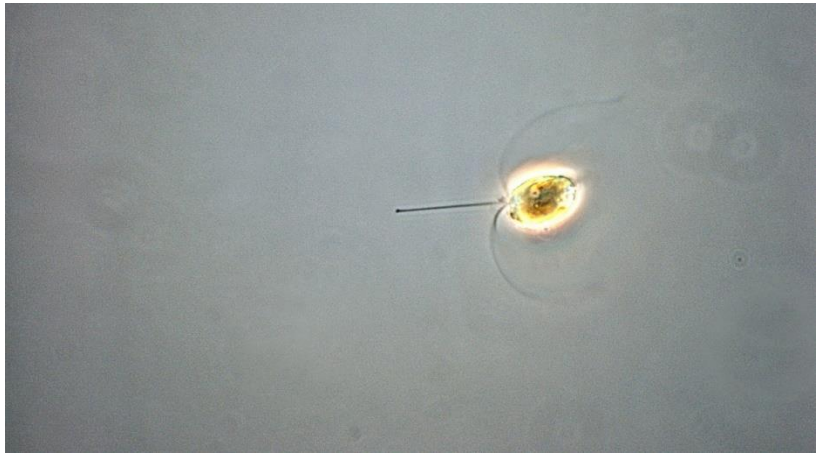
Companies required to report on incidences (ac. Food Law)

Restrictions based on "impact on society"



Veterinærinstituttet
Norwegian Veterinary Institute

Example of Mass Mortality Event (May 2019)



Chrysochromulina leadbeateri (EM picture)
FOTO: Algelaboratorie

- 10 µm
- Naturally occurring in seawater
- Top freshwater layer
- Lots of light
- N/P,
- Accumulate in calm sea

Two similar events; June 1991, May 2008.

Veterinærinstituttet
Norwegian Veterinary Institute

MAY

MON	TUE	WED	THU	FRI	SAT	SUN
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

Veterinærinstituttet
Norwegian Veterinary Institute

FOTO: Preben Andersen

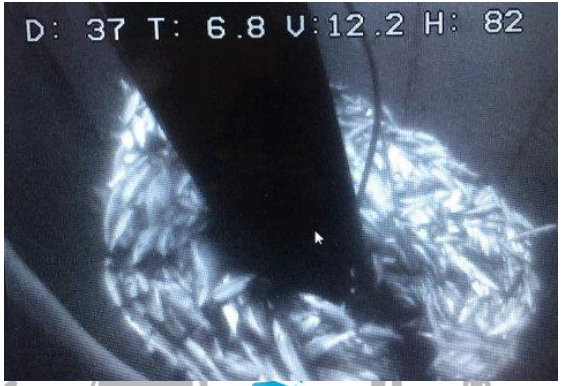
Foto: Stein Inge Pedersen, Deadline Media

Actions:

- Reporting; NFSA, Directorate of Fisheries, Vet inst, the Industry,
- Resources for collecting and handling dead fish ?
  - request for supporting vessels, people, tanks etc
- Resources for possible emergency slaughtering ?
- Possible moving fish to safe sites (each site > 2 days) ?
  - Dispensation from regulations
- Diagnostics
- Predictions of algae distribution due to water current
- Search for experience from previous episodes

Demand of well boats

Veterinærinstituttet
Norwegian Veterinary Institute



Veterinærinstituttet
Norwegian Veterinary Institute

Total loss;

9 companies affected

> 8 mill dead salmon

> 14,400 tonnes

> 40 -50 mill € ?

Foto: Northern Lights Salmon as

Veterinærinstituttet
Norwegian Veterinary Institute

Lessons learned or proven

- Better knowledge of potential threats from “the ocean” is needed
- Easy available knowledge of previous MMEs important
- Public-private - collaboration essential
- Capacity to handle emergency situation vs production volume
- Flexible and solution oriented authorities essential

Veterinærinstituttet
Norwegian Veterinary Institute

Emergency preparedness response requirements

- A well implemented and updated contingency plan at farm, region and national level
- Reporting and communication plan
- Available capacity to handle abnormal amounts of dead animals
- Early detection systems
- Causal investigation, tracing and prediction

Veterinærinstituttet
Norwegian Veterinary Institute

Veterinærinstituttet
Norwegian Veterinary Institute