

EXPOSED

AQUACULTURE OPERATIONS
CENTRE FOR RESEARCH-BASED INNOVATION

Hvilke jobber klarer maskinen selv nå, og hvor mye
klarer de om fem år?

Esten Ingar Grøtli

Antakelse

- Behov for maskiner for å få gjennomført arbeidsoppgaver i eksponert havbruk

Mer eksponert = mindre tilgjengelig

Selection of work operations on offshore fish cage sites (Misund and Gutsch, 2020).

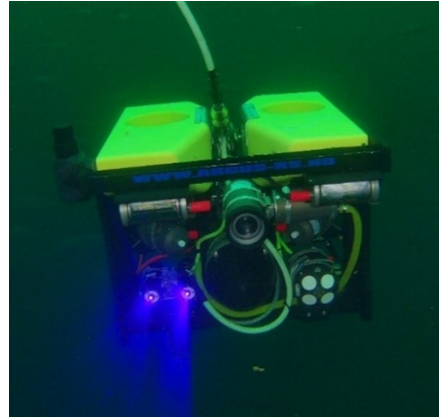
| Regularity | Operation | Equipment | Location | Personnel required |
|------------------------|---|--|--|--------------------|
| Daily | Dead fish collection/removal | Pump, dewatering container, crane. Basket, hand net, capstan, crane. | Net pens | 2 |
| | Net cage maintenance | Knife, rope, (in some cases capstans and cranes) | Net pens, floating collar, walkway, railings | 1-2 |
| Weekly | Counting salmon lice | Seine, crane, capstan, sedatives, seawater container, hand net | Net pens | 2-4 |
| Monthly (season based) | Placing and maintenance of wrasse shelter | Crane, high pressure washer | Net pens | 2 |
| Quarterly | Feeding tube handling / maintenance | Saw, ropes, straps, coupling, knife, gaskets | Net pens, barges, between the pens and barge | >2 |
| Yearly or more | Net installation | Crane, winch | Net pens, railing, collar | 3-4 |
| | Inspection of moorings | ROV, crane | Mooring grid system | >2 |
| | Handling of sinker tube | Crane, straps | Net pens | >2 |
| | Installation of bottom net weight | Crane, capstan, ropes | Net pens, collar | >2 |
| Operation dependent | Receiving wrasse | Container (maybe crane) | Net pens | 2 |
| | Inspection of the cage net | ROV, needle, thread | Net pens | >2 |
| | Transportation of equipment | Crane | Barge, Net pens | >2 |
| | Delousing operations | Mechanical, thermal, tarpaulin, triplex, oxygen equipment, seines, ball line, crane, capstan | Net pens, well boats | >5 |
| | Deliveries/sorting/splitting | Seines, ball line, crane, capstan | Well boat, net pens | >5 |
| Seasonal dependent | Feeding pipes to feeding selector valve | Straps, rope, knife, various hand tools | Barge | 1-2 |
| | Installing of lights | Knife, rope | Net pens | >2 |
| | Cleaning of net | ROV | Net pens | 2-4 |
| | Cleaning and disinfecting equipment | ROV | Net pens | 2-4 |



Foto: Erlend Berg, MOWI

Forutsetninger for teknologisk innovasjon

- Teknologi 
- Økonomi 
- Regulative 
- Miljø 
-



Arbeidsplassen til Anders og 52 andre dykkere er truet av lovendring

Dykkere sjekker oppdrettsmerder for å hindre at laks rømmer langs hele norskekysten. Nå kan det bli slutt med dykking for sjøfolk på båtene om Stortinget vedtar forslaget til ny lov.



DYKKER OG MANNKAP: Anders Sæviens står for nytt dykkereoppdrag utenfor Lævig på Trøndelagkysten. FOTO: HISA KLEVEN

Olav Kræven
Journalist

Toril Kræven
Journalist

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Artikkelen er nå arkivert og lesbar.



Du er her: Forsiden • Dokument • Rapporter og planer • Havbruksstrategien - Et hav av muligheter

Havbruksstrategien - Et hav av muligheter

2 Verden trenger bærekraftig, trygg og sunn sjømat

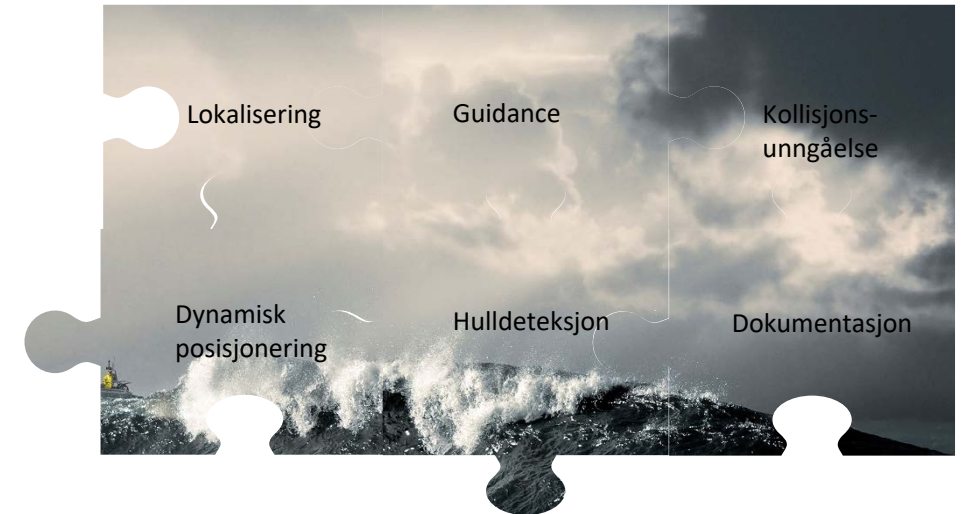
Puslespilleffekt



Tilbake til arbeidsoppgavene

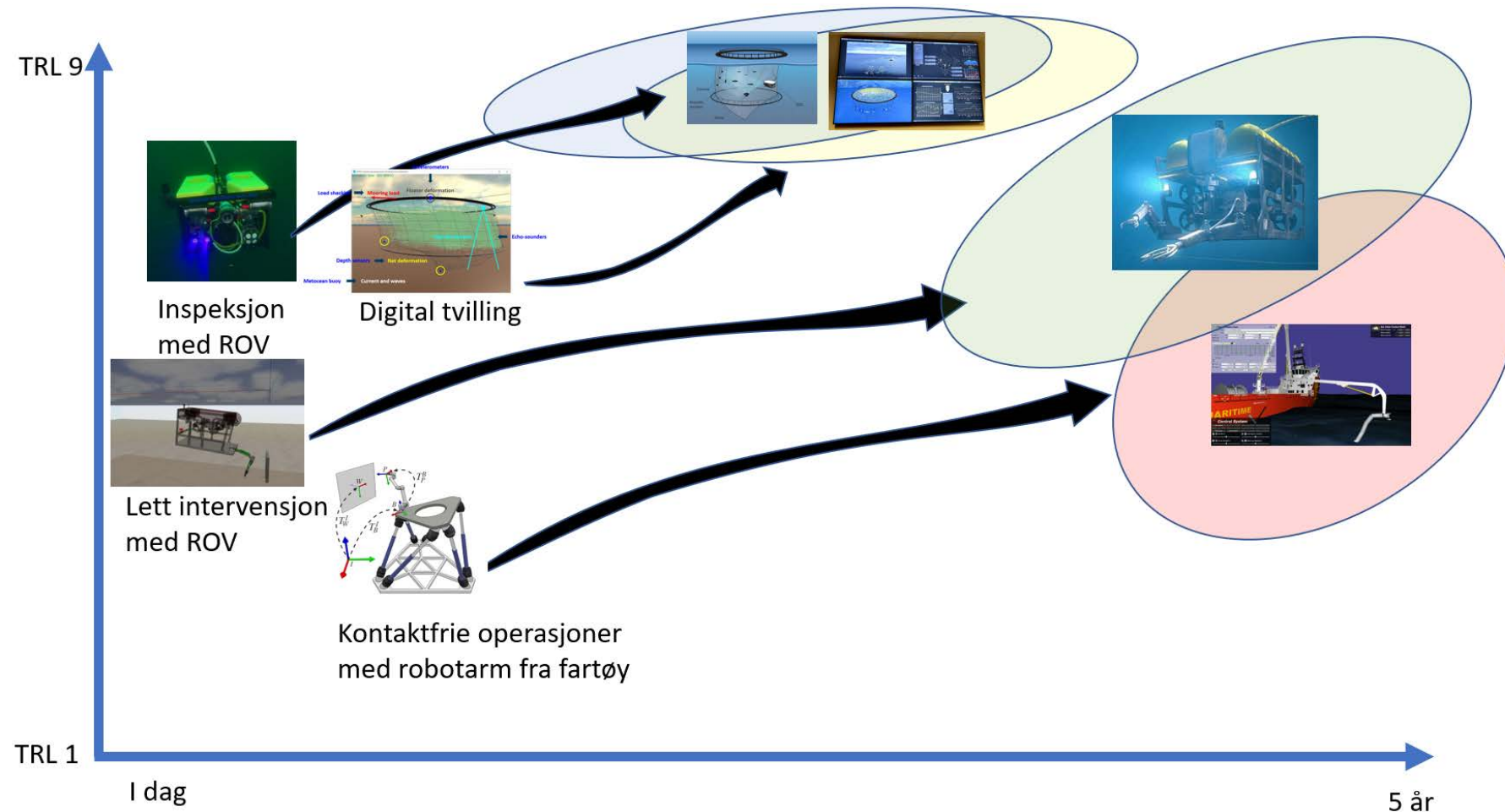
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Gjennom blant annet SFI Exposed er mye av basisfunksjonaliteten for autonome ROV-operasjoner på plass

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SINTEF Ocean • Mowi • Cermaq Norway • SalMar Farming • Kongsberg Maritime
Kongsberg Seatex • Scale AQ • Marine Design • Møre Maritime
Argus Remote Systems • DNV • SINTEF Digital • Institute of Marine Research
Anteo • Norwegian University of Science and Technology • AQS • MacGregor Norway • Safetec Nordic