



THE VALUE OF A STRONG SUPPLIER INDUSTRY

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The analysis in brief

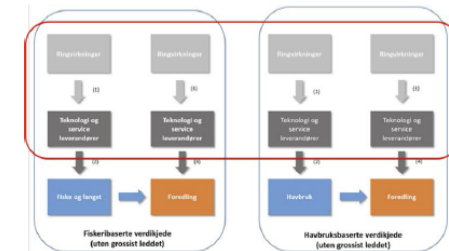
- Overview of suppliers
- Value creation – jobs and ripple effects
- Trends that will affect the supplier industry
- Export
- Norwegian suppliers' strengths and challenges

Rapport

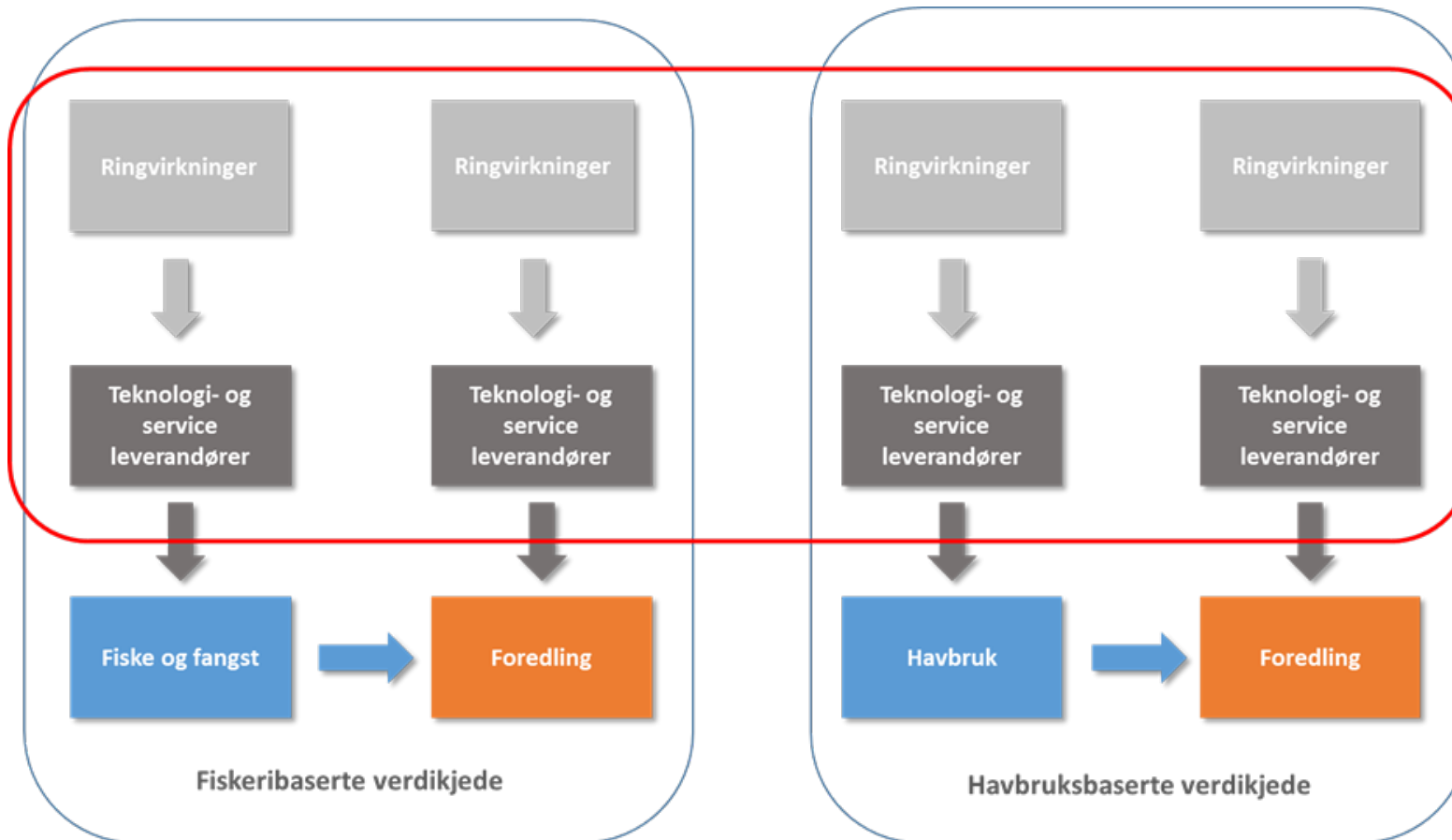
Ringvirkningsanalyse for teknologi- og serviceleverandører til sjømatnæringen - leverandører, utviklingstrekk og eksport

Forfattere

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Heidi Bull-Berg, Lars Vik, Inger Lise Tyholt Grindvoll: SINTEF Teknologi og samfunn



Which suppliers?



Creates value throughout Norway

- The suppliers are distributed all along the Norwegian coast
- But – there are clusters or hubs
- Inland Norway and the region around Oslo contributes to services as ICT, certification and finance – but also "hardware"



Database with 800 suppliers

Verdikjede	Kategori i databasen	Oversikt over leverandører presentert i rapporten	
Fiskeflåten	Fiskefartøy, bygging	Utstyr til fiske, inklusive leteteknologi	
	Teknologi, fartøy, kraner o.l		
	Service og vedlikehold	Utstyr til fiske- og havbruksfartøy	
	Teknologi til fiske, redskap		
	Teknologi til fartøy, leteteknologi	Design til fiske- og havbruksfartøy	
	Teknologi til ombordproduksjon (teknisk)		
	Teknologi, emballasje/pakking	Verft og sliper for bygging og service av fiske- og havbruksfartøy	
	IT-løsninger / IT-tjenester til fartøy		
Havbruk	Rådgiving, sertifisering, finansiering, FoU	Utstyr til sjøbasert havbruk	
	Teknologi til sjøbasert havbruk		
	Teknologi til lukket havbruk	Utstyr til landbasert havbruk	
	Teknologi til fiskehelse og hygiene, inkl. lus		
	Service og vedlikehold	Fiskehelse og miljøovervåking til havbruk	
	Fartøy, arbeidsbåter og flåter		
	Fartøy, brønnbåter	Brønnbåt- og servicebåttjenester til havbruksnæringen	
	Service og vedlikehold		
	Brønnbåt- og servicebåttjenester	Utstyr til slaktning, prosessering og ombordproduksjon	
	IT-løsninger / IT-tjenester til havbruk		
	Rådgiving, sertifisering, finansiering, FoU	Emballasje til slaktning, prosessering og ombordproduksjon	
	Fiskehelse- og hygienetjenester		
	Miljøovervåking, miljøsertifisering	IT-løsninger og IT-tjenester til sjømatnæringen	
	Teknologi til slaktning og prosessering		
	Fiskeindustri	Emballasje/pakking, inkl. utstyr	Rådgiving, sertifisering og FoU til sjømatnæringen
		Service og vedlikehold	
IT-løsninger / IT-tjenester til fiskeindustri		Finans- og forsikringstjenester til sjømatnæringen	
Rådgiving, sertifisering, FoU			
Fôr	Produsenter av fôr	Leverandører av fôr til havbruksnæringen	

15 categories - tables

Virksomhet	Fylke	Virksomhet	Fylke
Aanderaa Data Instruments AS	Hordaland	Mørenot Vevang AS	MR
AS Fiskevegn	SFj	Nofi Tromsø AS	Troms
Best Fishing Gear AS	SFj	Offshore Trawl & Supply AS	MR
Egersund Herøy AS	MR	Polyform AS	MR
Egersund Trål AS	Rogaland	Raymarine Norge AS	Østfold
Frøystad AS	MR	Scanmar AS	Vestfo
Furuno Norge AS	MR	Scantrol AS	Horda
Kongsberg Maritime Engineering AS	Vestfold	Selstad AS	SFj
Mustad Autoline AS	Oppland	Selstad AS avd Salg Svølvær	Nord
Mustad Havserservice AS	MR	Skipper Electronics AS	Oslo
Myre Redskapsentral AS	Nordland	Vonin Refa AS	Troms
Mørenot Austevoll AS	Hordaland	Vonin Refa AS	Nor
Mørenot Fishery AS	MR	VSK Fiskeredskaper AS	Troms
Mørenot Hammerfest AS	Finnmark	Værlandet Fiskeredskap AS	SFj
Mørenot Radøy AS	Hordaland	Åkrehamn Trålbøteri AS	Rogaland

Virksomhet	Fylke	Virksomhet	Fylke
AB Volvo Penta	Akershus	Nordox AS	Oslo
Alfa Laval Nordic AS	Akershus	Normatic AS	SFj
Bertel O Steen Teknisk AS	Hordaland	Optimar AS	MR
Brunvoll AS	MR	Otto Olsen AS	Akershus
Carl Stahl AS	Hordaland	Palfinger Norge AS	Akershus
Elpro Group AS	S-Trøndelag	PG Flow Solutions AS	Akershus
Finnøy Gear & Propeller AS	MR	Pon Power AS	Akershus
Fjordpipe AS	SFj	Rapp Marine AS	Nordland
Gunnebo Anja Industrier AS	Hordaland	Rolls-Royce Marine AS	MR
Halvorsen Power System AS	Rogaland	Servi Ulsteinvik AS	MR
Karmøy Winch AS	Rogaland	Sleipner Motor AS	Østfold
Lofoten Elektro AS	Nordland	Survitec Norway AS	MR
Macgregor Norway AS	Aust-Agder	Team Tec AS	Aust-Agder
MB Hydraulikk AS	Vest-Agder		
Nogva Motorfabrik	Hordaland		

Virksomhet	Fylke
Biomar AS	Nordland
- Biomar House	S-Trøndelag
- Fabrikk Karmøy	Rogaland
- Biomar Frøya	S-Trøndelag
- Biomar Rørvik	N-Trøndelag
- Fabrikk Myre	Nordland
EWOS AS	Hordaland
- EWOS Innovation Dirdal	Rogaland
- EWOS Innovation Lønningdal	Hordaland
- Fabrikk Florø	SFj
- Fabrikk Halså	Nordland
- Fabrikk Bergneset	Troms
Marine Harvest Fish Feed AS	Hordaland
- Fabrikk Valsneset	S-Trøndelag
Polarfeed	Nordland
- Fabrikk Øksfjord	Finnmark
Skretting AS	Rogaland
- Skretting Aquaculture Research Centre	Rogaland
- Lerang Research Centre	Rogaland
- Fabrikk Stavanger	Rogaland
- Fabrikk Averøy	MR
- Fabrikk Stokmarknes	Nordland
C-Feed AS	S-Trøndelag
- Produksjon Vanvikan	N-Trøndelag
Planktonic AS	S-Trøndelag

Virksomhet	Fylke	Virksomhet	Fylke
AKVA group ASA	Rogaland	Mørenot Vevang AS	MR
Aqualine AS	S-Trøndelag	Nordox AS	Oslo
Argon Elektro AS	S-Trøndelag	Normatic AS	SFj
Betten Maskinstasjon AS	MR	Norwegian Weather Protection	Hordaland
Bjørdal Industrier AS	MR	Optimar AS	MR
Botngaard AS	S-Trøndelag	Partner Plast AS	MR
Egersund Net AS	Rogaland	Plany AS	MR
GPA Flow Systems AS	Akershus	Polyform AS	MR
Gunnebo Anja Industrier AS	Hordaland	Steinsvik AS	MR
Haplast AS	Troms	Steinsvik AS avd Kolbeinsvik	Rogaland
Helgeland Plast AS	Nordland	Stingray Marine Solutions AS	Hordaland
Highcomp AS	Rogaland	Stranda Prolog AS	Oslo
Løvdal AS	Nordland	Trygg (Nysted Kjetting AS)	MR
Marine Construction AS	Hordaland	Viking Life-Saving Equipment Norge AS	Vest-Agder
Mørenot Aquaculture AS	MR	Vonin Refa AS	Hordaland
Mørenot Karlsund AS	Rogaland	Østerbø Maskin AS	Troms
			SFj

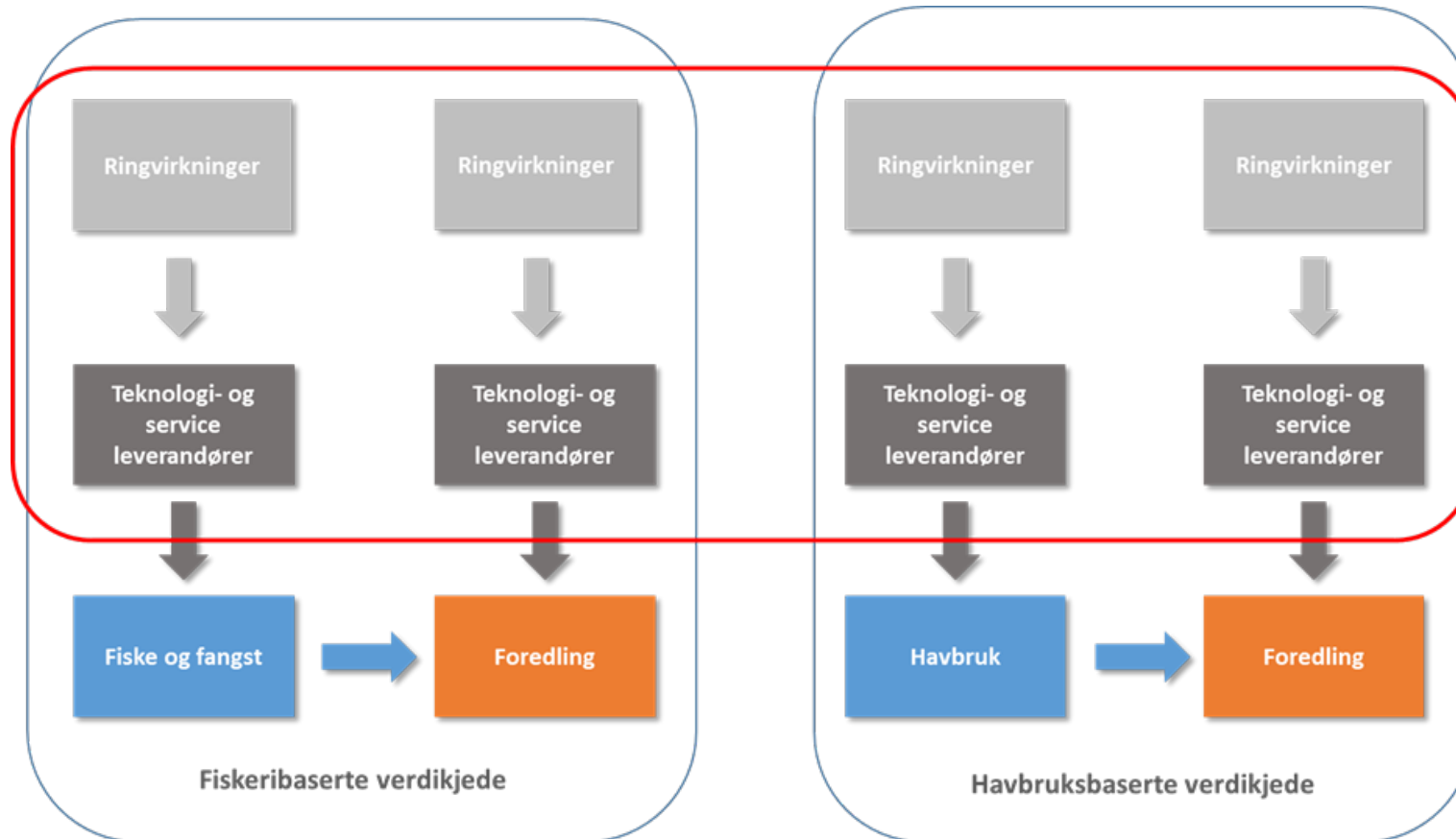
Virksomhet	Fylke	Virksomhet	Fylke
ABB AS	Akershus	Melbu Systems AS	Nordland
AGA AS	Oslo	Optimar AS	MR
Alfa Laval Nordic	Akershus	Prosess Industri LTD AS	MR
Alfsen og Gunderson AS	Oslo	Rupro AS	S-Trøndelag
Argon Elektro AS	S-Trøndelag	Scaleit AS	MR
Baader Norge AS	MR	Siemens AS	Akershus
Bosch Rexroth AS	Østfold	Sperre Industri AS	Oslo
Cflow Fish Handling AS	MR	Still Norge AS	Oslo
Fronordica AS	MR	Stranda Prolog AS	MR
GEA Norway AS	Oslo	Teknotherm Marine AS	S-Trøndelag
Gunnebo Anja Industrier AS	Hordaland	Therma Industri AS	MR
Hesselberg Truck AS	Hordaland	Toyota Material Handling Norway	Østfold
Johnson Controls Norway AS	Oslo	YARA Praxair AS	Oslo
Kuldeteknisk AS	Oslo	YARA Praxair AS avd Luftgassfabrikk Rjukan	S-Trøndelag
Marel Norge AS	Troms		Oslo
	MR	Ølve Industrier AS	Telemark
			Hordaland

Virksomhet	Fylke	Virksomhet	Fylke
Akvaplan-niva AS	Troms	Multiconsult ASA	Oslo
Aqua Gen AS	S-Trøndelag	Nemko AS	Hordaland
Aqua Knowledge AS	Rogaland	Nifes - Nasjonalt institutt for ernærings- og sjømatforskning	Hordaland
Aquastructures AS	S-Trøndelag	NINA - Norsk Institutt for Naturforskning	S-Trøndelag
BDO AS	S-Trøndelag	Nofima AS	Troms
Deloitte AS	Oslo	Nordlandsforskning AS	Nordland
DNV GL Business Assurance Norway AS	Akershus	PG Flow Solutions AS	Akershus
Ernst & Young AS	Oslo	PWC AS	Oslo
Eurofins Environment Testing Norway AS	Østfold	Rambøll Norge AS	Hordaland
Fugro Norway AS	Oslo	Rådgivende Biologer AS	Hordaland
Global Maritime AS	Rogaland	Salmobreed AS	S-Trøndelag
Goodtech Project & Services AS	Hordaland	SINTEF Ocean AS	Rogaland
Havforskningsinstituttet	Hordaland	Skretting Aquaculture Research Centre AS	Rogaland
IRIS AS	Rogaland	UNI Research AS	Hordaland
KPMG AS	Oslo	Veterinærinstituttet	Oslo

What do the suppliers say?



Value creation and employment

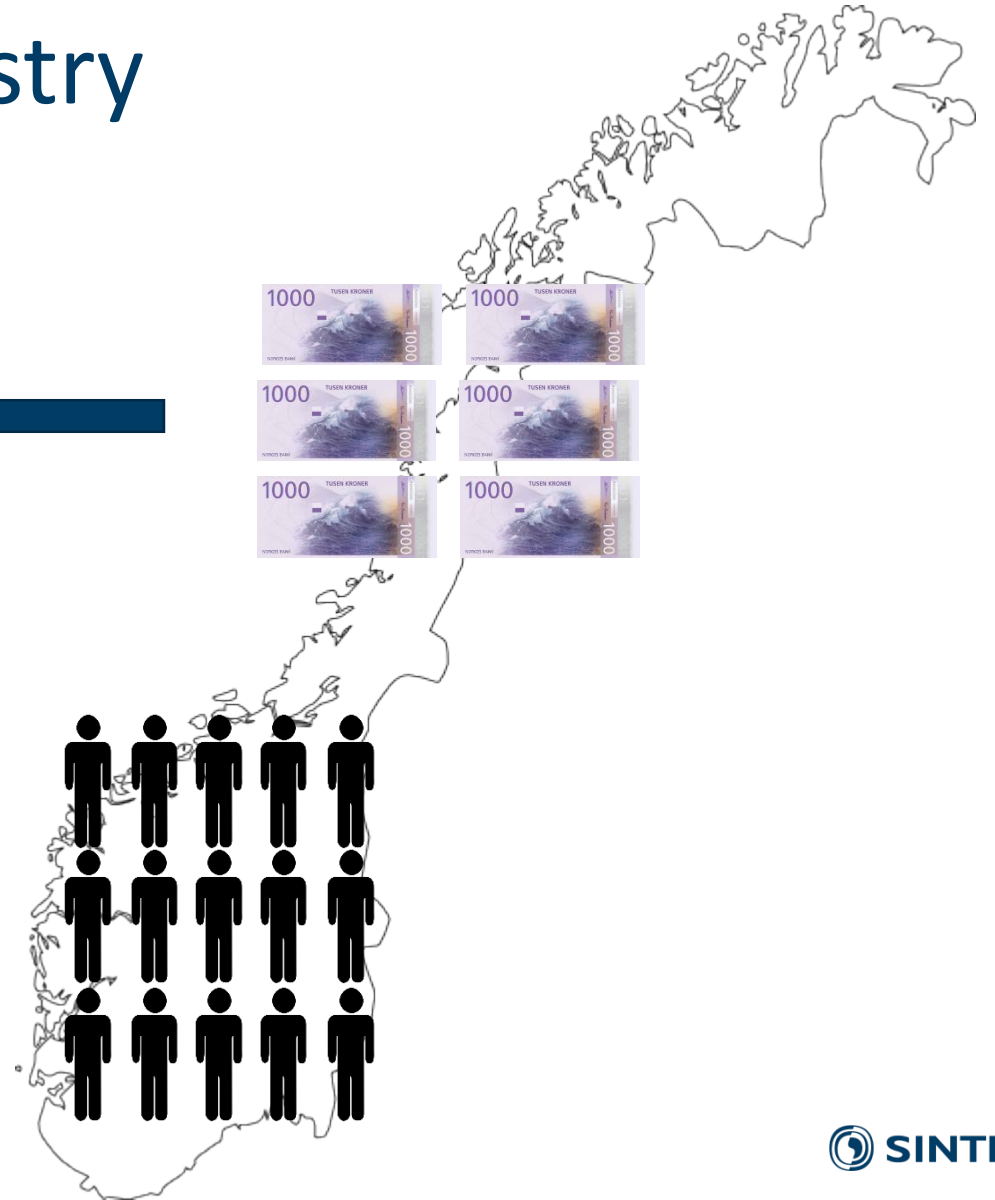


Technology and service industry

Contribution to GDP
24,5 billion NOK

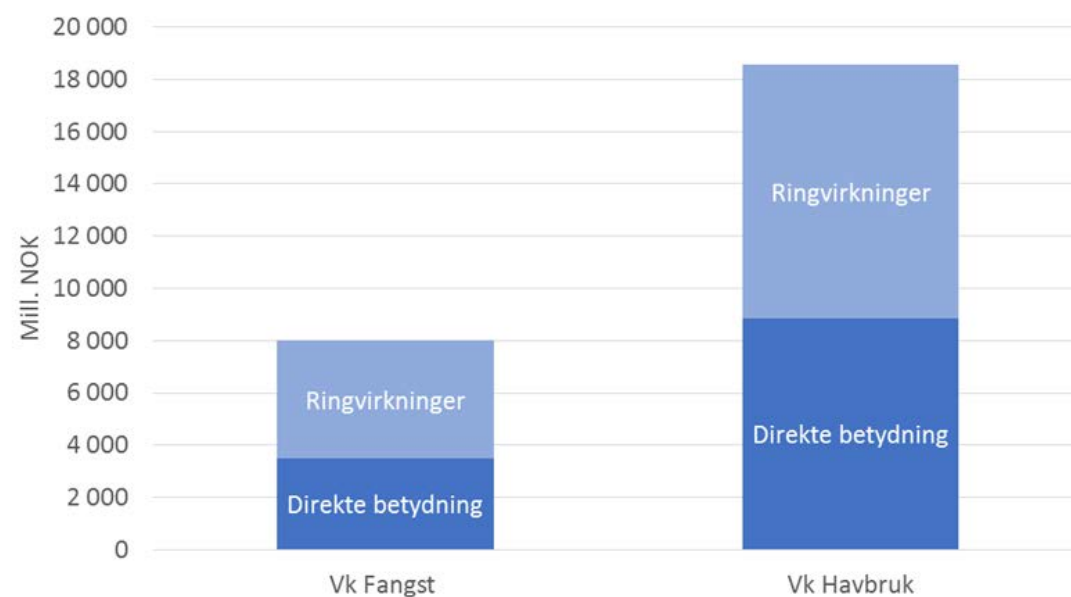


21 400 man years

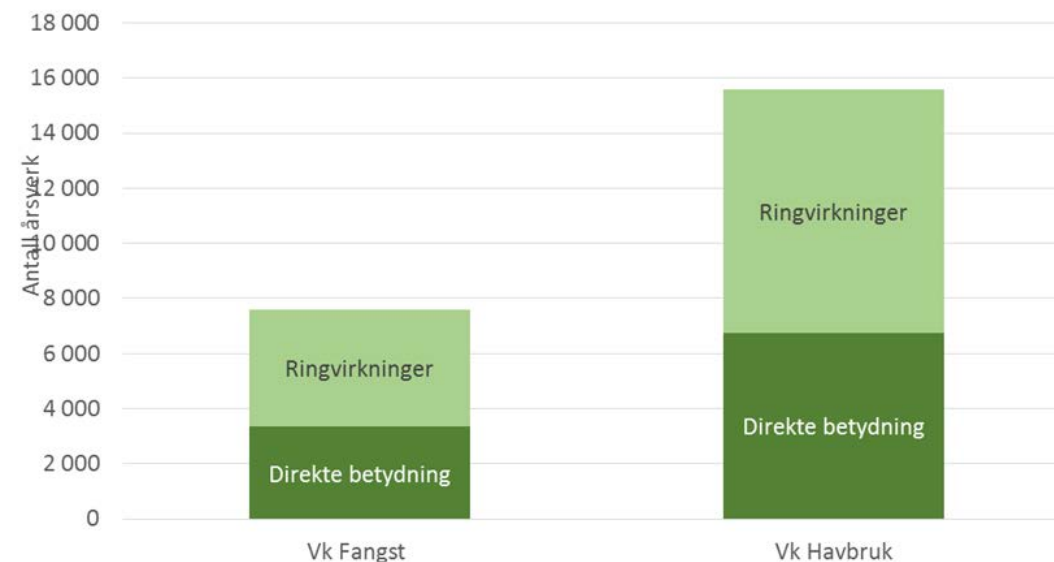


Value creation and employment

Contribution to GDP 2015

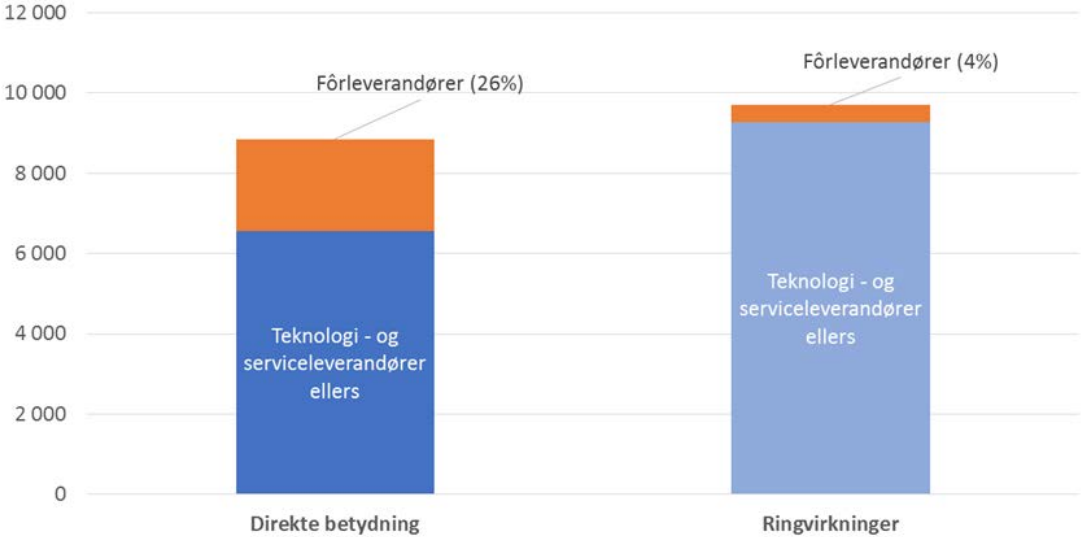


Number of jobs 2015

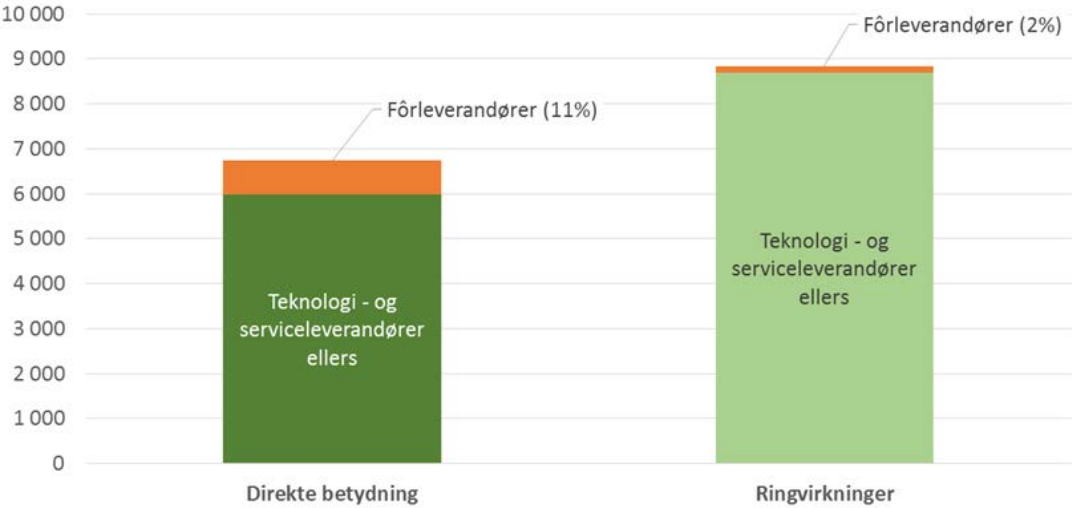


The feed suppliers

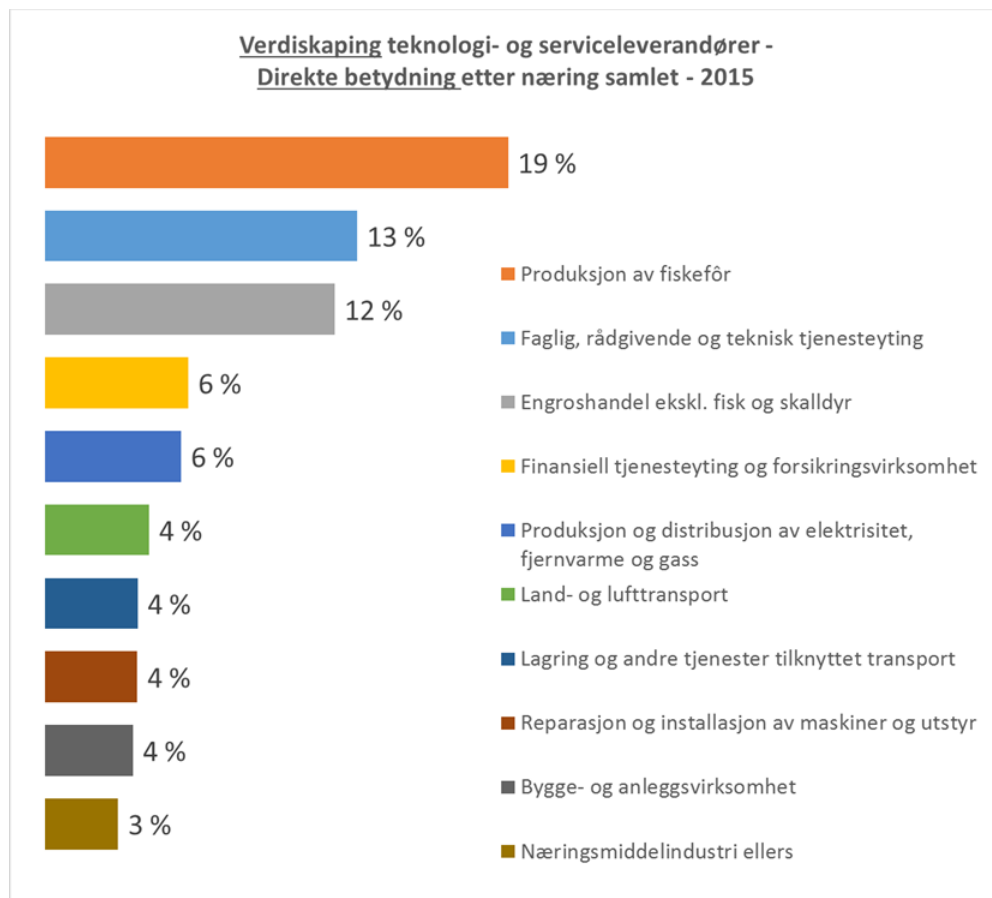
Contribution to GDP 2015



Number of jobs 2015

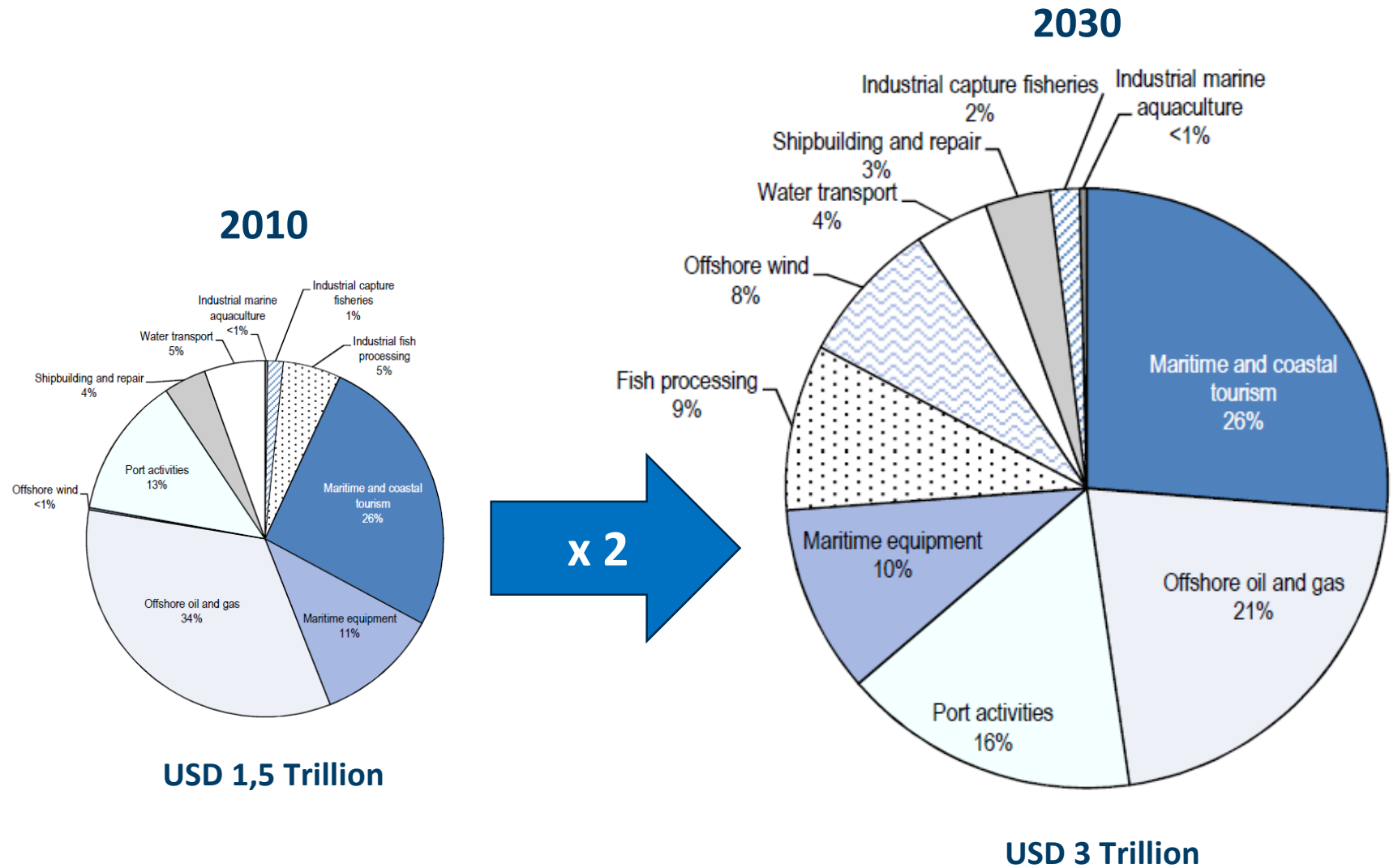


Who is who?



Key drivers

- International and national trends show great opportunities for the supplier industry
- The development will take place across the ocean industries
- The Norwegian Government's Ocean Strategy



OECD, The Ocean Economy in 2030

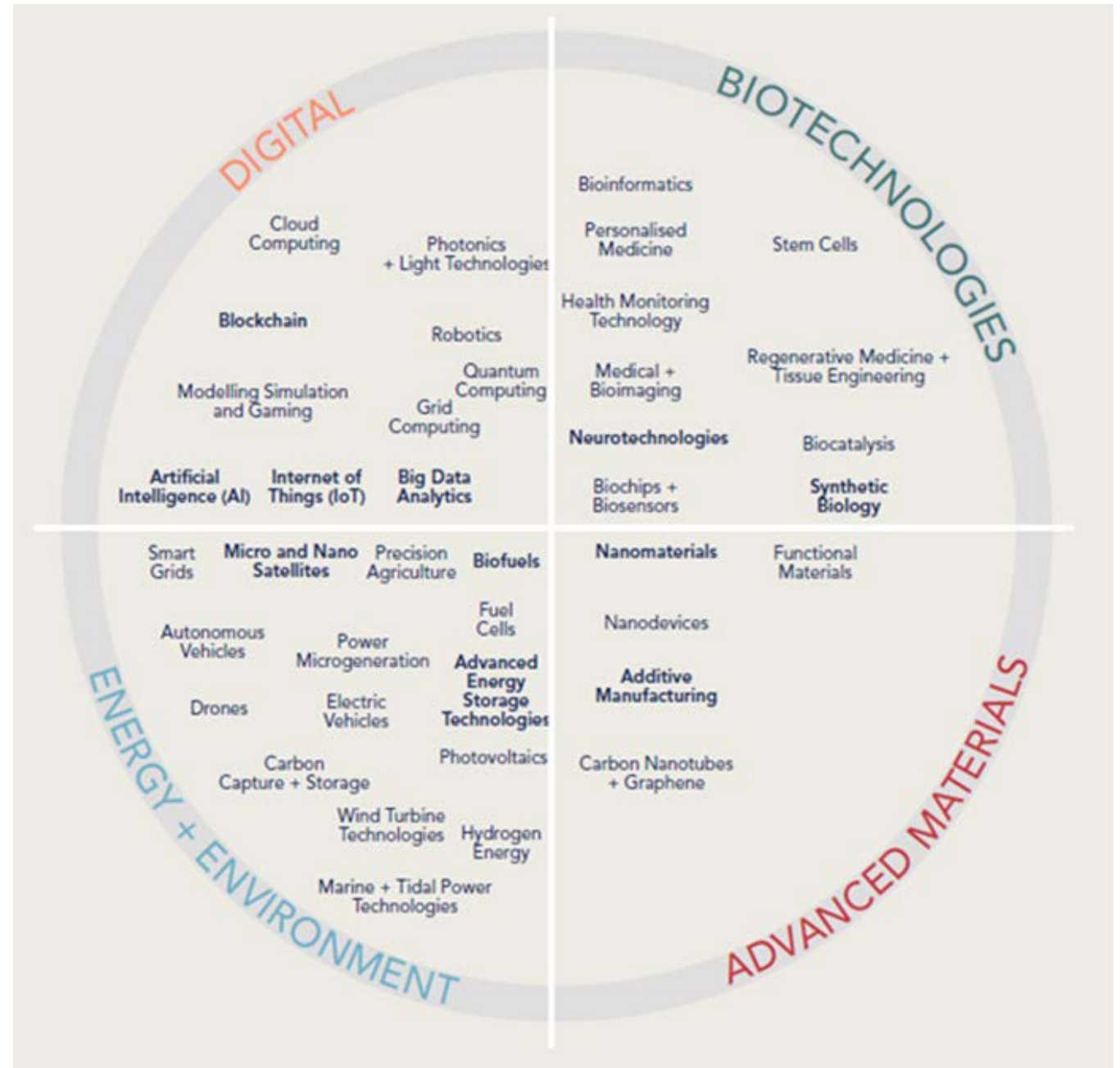
Key drivers

- New technology and new solutions will be central to development of the seafood industry
- Enabling technologies will characterize the development in our society in the future
- In particular they will be crucial in the technology based industries
- Even higher demand on technological know-how among suppliers

Enabling technologies

OECD. 2016b. An OECD horizon scan of megatrends and technology trends in the context of future research policy.

Danish Agency for Science, Technology and Innovation / OECD 2016.



Key drivers



Government.no

- The suppliers operate in a competitive market – nationally and internationally
- Our respondents: Good and predictable government regulations are crucial
- For the supplier industry further growth and profitability in the seafood industry is important

ID LOVDATA

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17.06.2008 nr. 822 Nærings- og fiskeridepartementet
Akvakulturdriftsforskriften

22.12.2004 nr. 1799 Nærings- og fiskeridepartementet
Forskrift om akvakultur, andre fiskearter

22.12.2004 nr. 1798 Nærings- og fiskeridepartementet
Laksetildelingsforskriften

28.08.2003 nr. 1110 Nærings- og fiskeridepartementet
Havbeiteforskrifta

Some important topics

The supplier industry itself

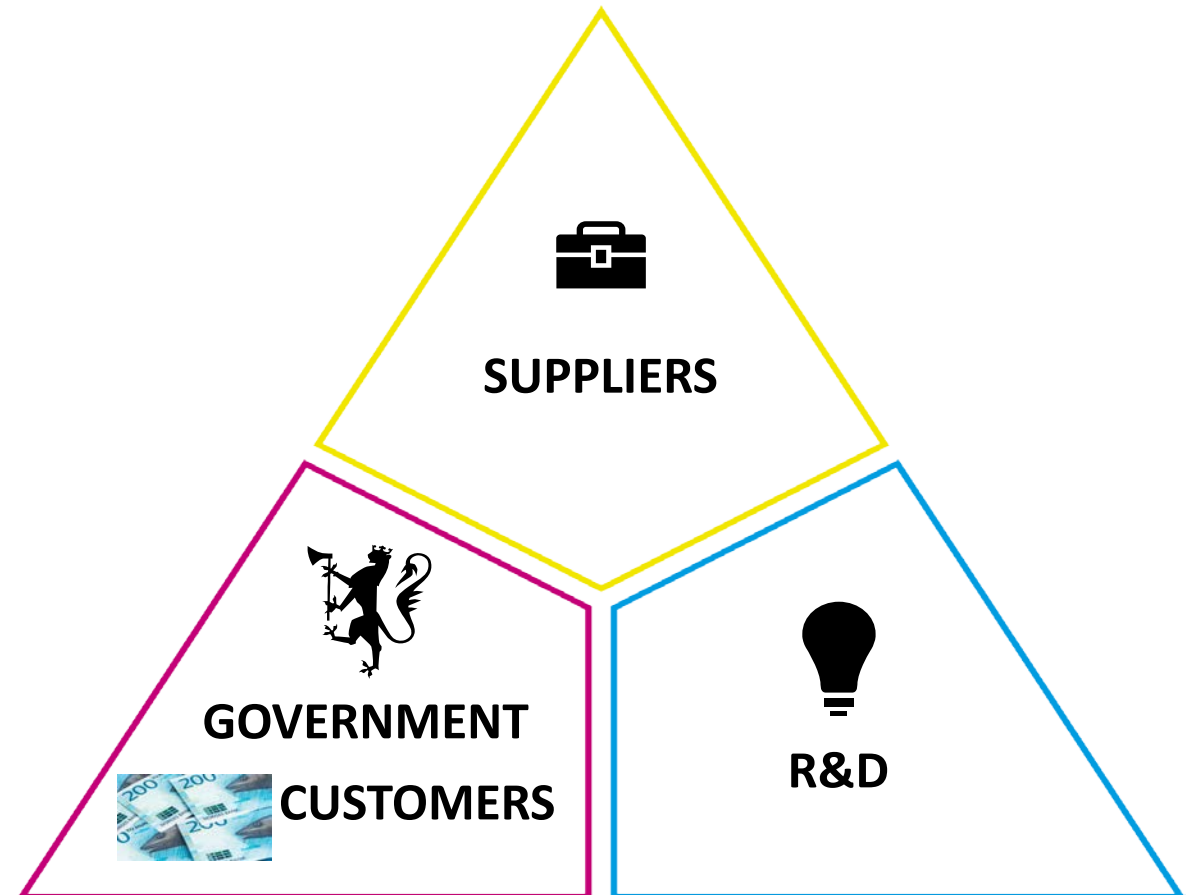
- Is a huge advantage for the seafood industry

The Norwegian innovation system

- Customers – suppliers – R&D – authorities – funding agencies are working together

When exporting technology...

- Then it may be necessary to provide comprehensive solutions where training and follow-up are included in the delivery



Thank you for your attention!

The report may be downloaded on www.fhf.no or www.sintef.no/ocean



Technology for a better society