



GCE Ocean Technology

Jon Oddvar Hellevang ▪ ▪ ▪ ▪ ▪ R&D MANAGER

Agenda



- 08:30 Velkommen - Hvordan jobber klyngen med innovasjon
Jon Hellevang, R&D Manager GCE Ocean Technology
- 08:40 Introduksjon til Ocean Innovation Catapult
Bjarte Horn, Prosjektleder Ocean Innovation Catapult
- 08:50 Planer og ambisjoner for Clara Venture Labs
Bernt Skeie, CEO Clara Venture Lab
- 09:10 Additiv produksjonsmuligheter
Espen Matre, CTO Additec
- 09:25 Innovasjonsprosesser og metodikk
Bjørnar Vasenden, Produktdesigner og Avdelingsleder Inventas
- 09:40 Diskusjon og dialog
- 10:00 Slutt

GCE Ocean Technology

PARTNERS

Industry



R&D



Development Contributors



Higher Education Institutions



MEMBERS



Supported by



Cluster Relations

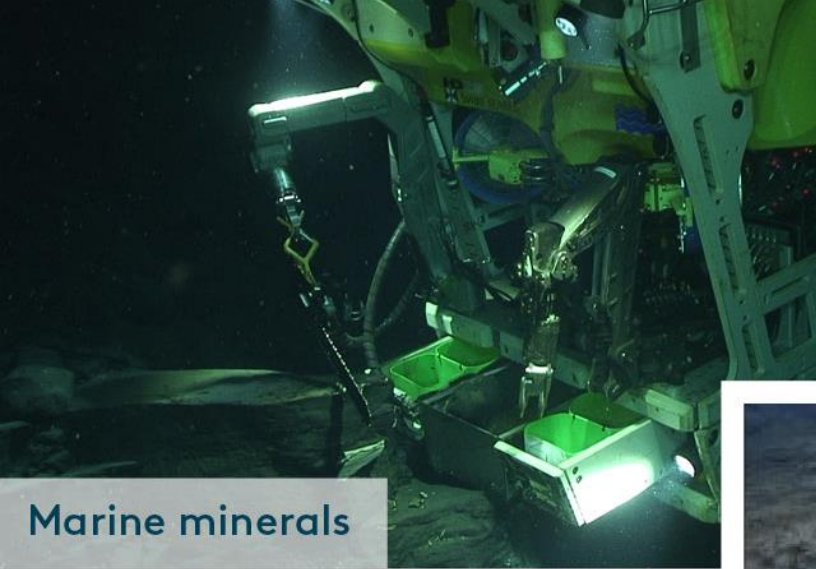


National Relations



International Relations

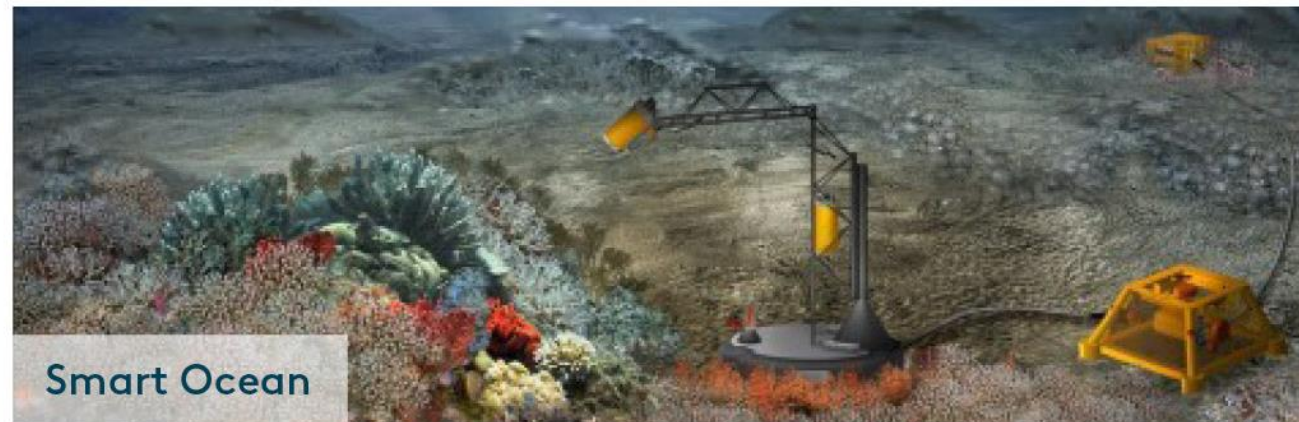




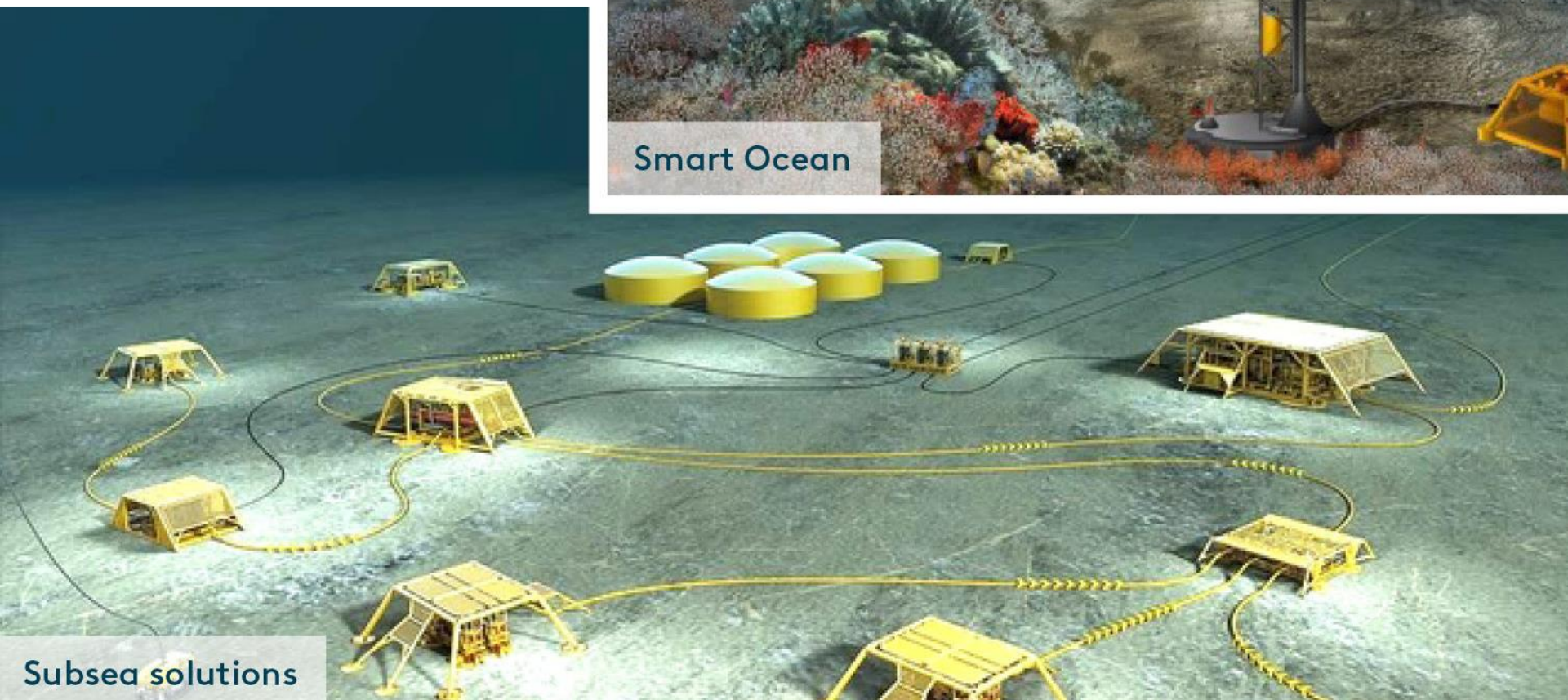
Marine minerals



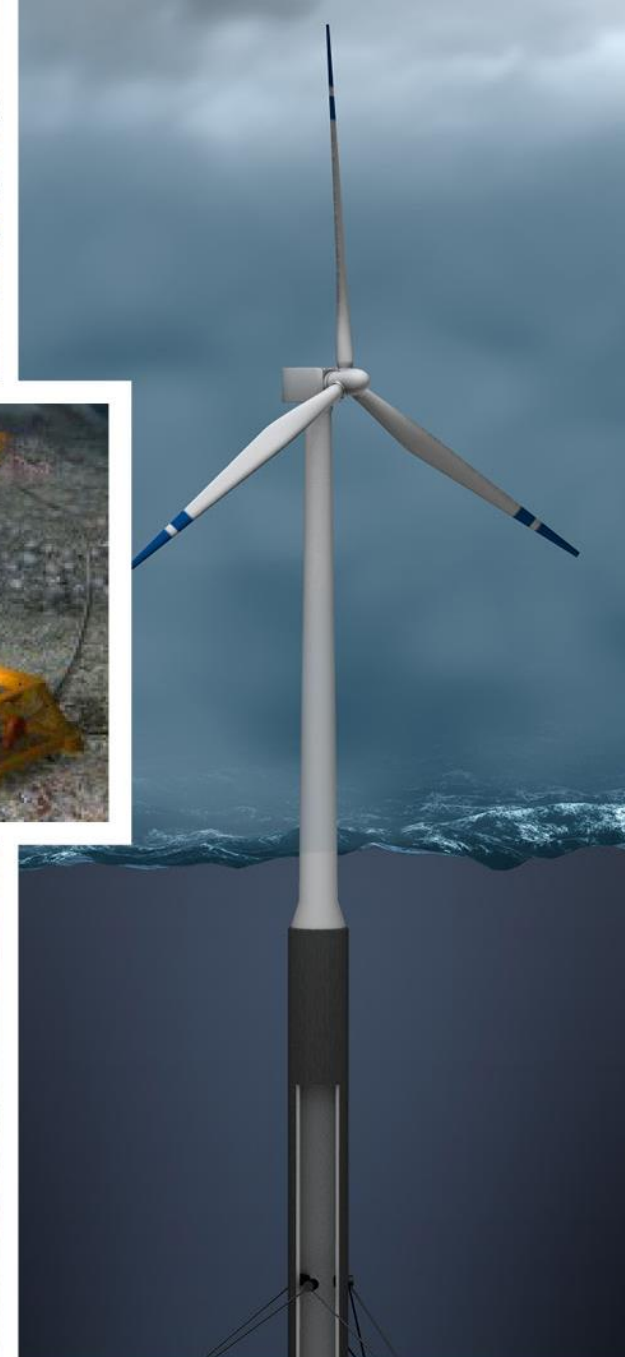
Marine food production



Smart Ocean



Subsea solutions



Offshore renewable energy

Our Services

- Network
- Competence
- Projects and Working Groups
- Funding
- Business Development Programmes
- Events
- Marketing and promotion

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Facilitating Innovation

- Provide financial and professional support to establish externally funded RDI projects.
- Secured more than 1.75 billion NOK in external funded RDI projects.

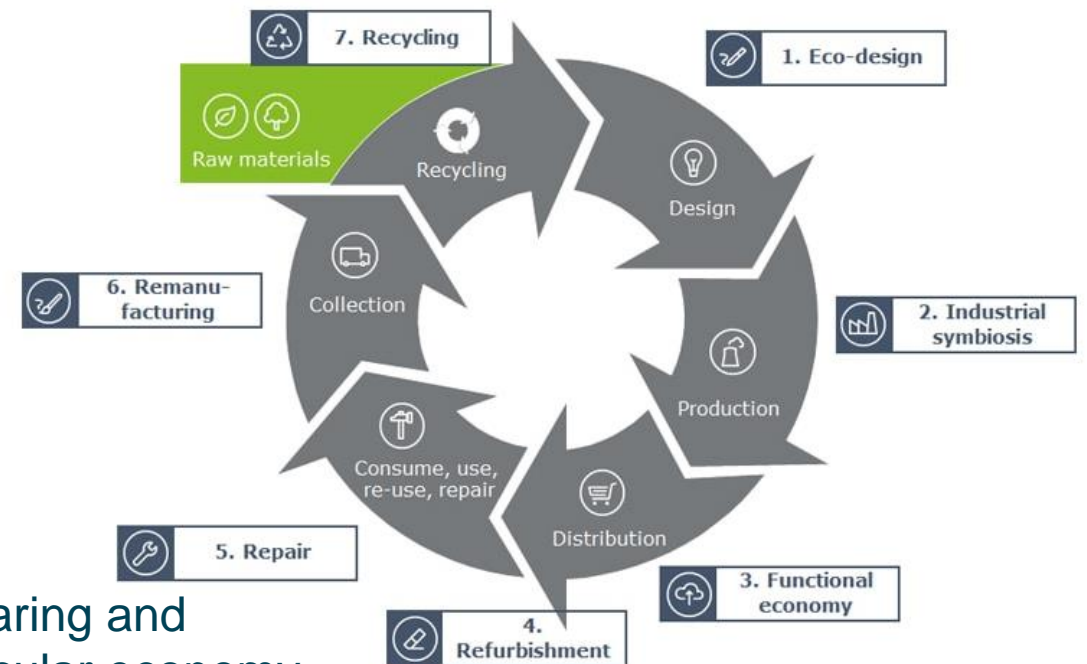


Power

- Low carbon
- Renewable



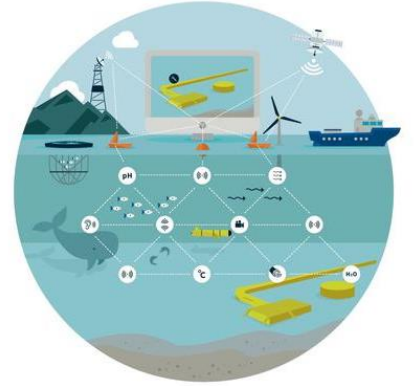
Autonomi



Sharing and
Circular economy

External Funding Contribution 2020

- 180 MNOK in funding from IN/NFR/EU
- 1.75 Billion NOK in cluster facilitated spin-off projects (accumulated since 2006)
- SFI Smart Ocean: 96 MNOK funding (~300 MNOK total)
- Deep Purple – Pilot project: 28 MNOK funding (83.25 MNOK total)
- 3 X DEMO 2000 projects granted: 17.5 MNOK funding
- 3 X Grant for Commercialisation: Adepth Minerals, ConditionAll and SmartFeatures
- Other project examples:
 - Sharing/circular economy: CompetenceHub - shAIRskills. Reuse and upcycle - CCB Subsea
 - Environmental monitoring: DrillWatch - OCTIO. Oil in Water Monitoring - ProAnalysis
 - Autonomy/drone: Eelume. Transmark Subsea



Business Development

- Start-up / entrepreneurship
- 100 ScaleUp (MIT programme)
- Cross-over programme





GCE Ocean Technology has contributed to our roadmap and success within renewables. The cluster administration is good at linking needs and expertise and giving members visibility. The cluster also creates new important tools such as the Catapult center.”

Gunnar Birkeland

CEO UNITECH Offshore

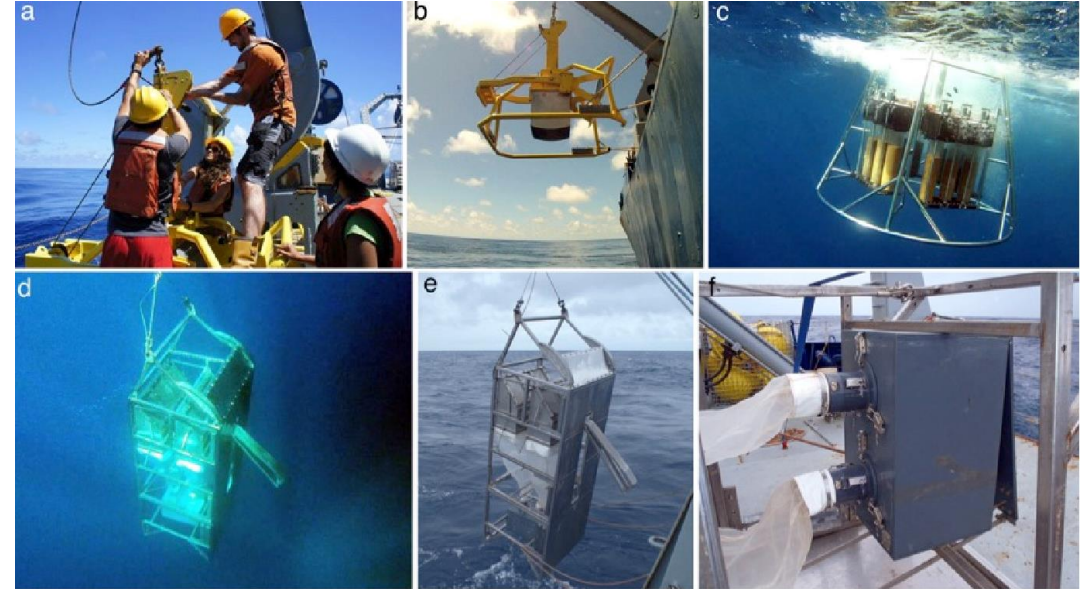


Project Examples

EcoSafe Ridge Mining



- 3-year competence building project
- Budget: 18 million NOK (13 MNOK from RCN)
- The study area: Arctic Mid-Ocean Ridge
- Obtain a robust ecological baseline
- Assess environmental risks
- Identify appropriate mitigation actions regarding deep-sea mining
- Balance between the societal demand for valuable metals and the conservation of the marine environment



Picture: Courtesy of NORCE

- **University of Bergen (lead)**
- NORCE
- University of Stavanger
- NIOZ
- Equinor
- Norwegian oil and gas association
- GCE Ocean Technology
- Loke Marine Minerals
- Adepth Minerals
- Aandera/Xylem

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[Millions for Eco-Safe Ridge Mining Project | GCE Ocean Technology](#)



Competence Hub

- [Competence Hub](#) is a joint digital platform for sharing of employees across cluster companies at cost price.
- Lets you share employees with other companies in low-activity periods.
- Lets you borrow employees from other companies in high-activity periods.
- A pool of designers, engineers and developers
- To join, contact:
 - erik@shairskills.no
 - jorgen@shairskills.no

Collaboration between ShAIRskills and GCE Ocean Technology.



Reports

GCE Ocean Technology has contributed to a number of new reports about new energy markets lately – all available at gceocean.no

- [Report on Norwegian Offshore Wind](#)
- [Report on Marine Minerals – Norwegian Value Creation potential](#)
- [Report about restructuring in the Petroleum Industry](#)
- [Hydrogen survey among the population](#)



Techtransfer.no

Some examples of Norwegian technology transfers from the oil and gas industry to other industries.

Portal and cases provided by:

GCE NODE

NCE Energy Valley

Norsk Olje & Gass

Innovasjon Norge

GCE Ocean Technology



NORWEGIAN TECHNOLOGY TRANSFERS

from the oil and gas sector

About us

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MARITIME

Longer lifetime with new maintenance solution

A machinery monitoring system which allows shipowners to achieve substantial reductions in their maintenance costs has been industrialised by Machine Prognostics.



SMART CITY

Lighting the way for motorists

Fosstech works with products tailored for extreme environments in such areas as the oil and gas industry. It is now applying its offshore expertise and technology to illuminating motorways.



FISHERIES AND AQUACULTURE

New trawl technology supports fish sorting

Scantrol Deep Vision has developed a subsea camera system which identifies the species and length of fish entering a trawl. This makes fishing more efficient and sustainable, while cutting fuel costs and greenhouse gas emissions for trawlers.



RENEWABLE ENERGY

Dynamic cables for offshore wind farms

Unitech has specialised for several decades in the design, production and delivery of subsea equipment for the oil and gas sector, including connectors and cables. It is now turning its attention to wind power at sea.



RENEWABLE ENERGY

Cost-effective supports for offshore wind turbines

Wind turbine foundations can be installed at sea faster more cheaply and more safely with the solution Imenco has developed through its involvement in the oil and gas industry.



SMART CITY

Offshore drilling technology to robotic renovation of water distribution

Techni has succeeded in developing a solution for connecting houses to the mains water supply without the need to carry out excavation work.



FISHERIES AND AQUACULTURE

Using sound for mooring line integrity monitoring

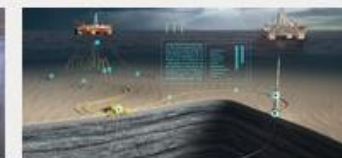
Acoustic sensors and wireless transfer allow Scanmatic's system to monitor mooring lines on floating offshore installations. The company is now looking at new markets in offshore wind and aquaculture.



FISHERIES AND AQUACULTURE

More efficient aquaculture and healthier fish

CSUB AS has succeeded in new markets in aquaculture and land-based products on the basis of delivering underwater structures to the international oil and gas industry.



RENEWABLE ENERGY

From fish to drilling to wind power

In 2008 4Subsea had the vision that drilling operations on the Skarv field in the Norwegian North Sea ought to be controlled by actual measurement data rather than design parameters alone.

Innovation Lab

- 18-19 Mai 2022
- Lunch - lunch
- Solstrand Hotell
- Establish new joint «Lighthouse» projects
- Energy transition;
 - Marine renewable energy
 - Hydrogen/CCSU
 - Digitalisation/Smart Ocean/Autonomy
 - Marine minerals



Keep posted

- Weekly newsletter
- Invitations to all events
- Invitations to relevant cluster projects

www.gceocean.no/events/

www.gceocean.no/news/newsletter/

All members and partners are invited to [submit](#) their news story to be published at gceocean.no

News



Unlock Growth in Your Company

It is a well known fact that Norway is lagging behind in the race of creating growth companies. Our 12 week scaleup programme is designed to unlock rapid growth in companies. Apply to join this year's cohort.

[Read more](#)



Cluster Insight

USEA works to step-change autonomy for marine and underwater robotics. The company recently received about 6.5 million NOK from the Research Council of Norway to develop its active towed docking station for AUVs.

[Read more](#)



UTC – Extended Deadline

There is still an opportunity to submit abstracts to the Underwater Technology Conference in Bergen.

The call for abstracts deadline has been extended to 29 January.

[Read more](#)



Pre-project Funding

As partner or member of GCE Ocean Technology you can apply for pre-project funding to establish externally funded research, development and innovation (RDI) projects.

Deadline for applying is 31 January.

[Read more](#)

Invitations



Meet Equinor Technology Ventures

We invite our members to spend a day with us in Bergen to pitch your business ideas to Equinor Technology Ventures and also meet Techstars Energy. Apply before 15 February.

Time: Thursday 5 March 2020, 09:00 - 15:00

Location: Vitensenteret, Thormøhlensgate 51, Bergen

We continue our successful yearly event where we, in cooperation with Equinor, select up to 10 member companies (SME's) who will get to showcase their new technology, relevant for Equinor. Furthermore, we aim to have some representatives from Equinor's Research and Technology unit and also Techstars Energy present.

Scouting for New Technology

[Equinor Technology Ventures \(ETV\)](#) is always looking for new technologies in upstream oil and gas. Building on a proven venture track record, ETV can provide expert technical and financial guidance as well as venture capital or project-based funding.

Pitching and Speed-dating

Each company will make a short 10-minute pitch followed by an individual 20-minute follow-up meeting with Equinor.

Participation and Costs

GCE Ocean Technology members in the category small and medium sized enterprises may apply. The technology/solutions that you have should be relevant to Equinor Technology Ventures. The event is free of charge.

Apply before 15 February

[Apply to participate](#)

Contact Information

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World Class Ocean Technology from Norway



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