



COUNTRY FICHE NORWAY

SMART SPECIALIZATION

NATIONAL LEVEL

Norway is one of the leading ocean economies in the world today. The Norwegian Government regards the maritime industry as a priority sector. Its employment rate, value creation and spillover for other industries make it an important driving force in business and industry in Norway. (Norwegian ministry of trade, industry and fisheries, 2015)

Norway is one of the largest oil and gas producers in the world and one of the largest and most advanced seafaring countries in the world. Although its strong competitiveness and links to all parts of the world are its main strength, the cluster also relies solely on this single industry, which makes it vulnerable to changes in the market and limits its ability to open up to other maritime economic activities. (DG maritime affairs and fisheries, 2012) Therefore, the maritime cluster in Norway is at the forefront of efforts to develop new, innovative solutions. (Export.gov, 2016)

Other clusters in Norway are the shipping cluster (which is linked closely to the oil and gas sector), export of fish and seafood (Western Norway hosts aquaculture clusters which build especially on salmon production) and marine research and responsible management of marine resources.

(Norwegian ministry of trade, industry and fisheries, 2015)

There are four main maritime policies in Norway. Separate strategies apply to the oil and gas, shipping, tourism and aquaculture industries. In 2015, a maritime strategy has been published which presents the Government's policy to develop the maritime potential of the ocean industries. The Government's main goals for the maritime industry are sustainable growth and value creation. In order to reach this goal, the Government will focus on:

- Trade areas for NIS registered vessels
- Environment
- Maritime administration
- Competence and education
- Research, development and innovation
- International regulatory frameworks
- Blue growth
- The high north

(Norwegian ministry of trade, industry and fisheries, 2015)

REGIONAL LEVEL

The most dominant maritime economies are Agder and Rogaland and Vestlandet in the western and southern parts of Norway. In offshore oil and gas, deep - sea shipping, shipbuilding and aquaculture, these regions are strong. (Norwegian ministry of trade, industry and fisheries, 2015)

The seafood industry occupies a unique position in the three northernmost counties. The development of marine research and technology is strong. For the ocean industry, the western counties of Rogaland, Hordaland and Møre og Romsdal are especially important. The oil and maritime industries represent a significant percentage of jobs and value creation. (Norwegian ministry of trade, industry and fisheries, 2015)

In Central Norway, there is a research environment that in cooperation with companies and authorities has created the world's first test area for autonomous vessels. For generations, the Tyholt Maritime Technology Center in Trondheim has helped put the Norwegian industry at the forefront of shipbuilding, shipping, offshore oil and gas, fisheries and aquaculture. Eastern Norway is also important to the ocean industries. Among other factors, many specialised service providers and financial institutions are established here. (Norwegian ministry of trade, industry and fisheries, 2015)

As an important service provider for the oil and maritime industries, Southern Norway also plays a central role. One example is the GCE NODE network, where a number of companies are asserting themselves in the global market in their fields. (Norwegian ministry of trade, industry and fisheries, 2015)

Several Norwegian county municipalities use the method of smart specialization as a tool for business development. The Ministry of Local Government and Modernization has created a Norwegian supervisor on smart specialization as a method for regional business development. (The Ministry of Local Government and Modernization, 2018) However, smart specialization strategies are not sufficiently developed in all Norway regions. Possibly, this is due to the fact that Norway is not eligible for ERDF funds (ERDF funding requires a smart specialization strategy). The counties East and West Agder have not yet set out Smart Specialization Strategies, although, in November 2013, they have identified some areas of interest.

Innovation priorities East Agder:

- Energy and technology
 - Mining and quarrying
 - Extraction of crude petroleum
 - Manufacturing
- ICT
 - Telecommunications
 - Computer programming
 - Consultancy and related activities
 - Information service activities
- Experience industry, tourism, culture and creative industries

Innovation priorities West Agder:

- Energy and technology
 - Electricity, gas, steam and air conditioning supply
- ICT
 - Telecommunications
 - Computer programming
 - Consultancy and related activities
 - Information service activities
- Experience industry, tourism, culture and creative industries

COMMENTS AND EXPERIENCES

The selected priorities of the smart specialization strategy, so far, do not necessarily reflect the expertise within the Agder region. A clear link to its world class maritime technology and process industry is missing.

INTELLECTUAL PROPERTY RIGHTS (IPR), REGULATIONS AND STANDARDS SUPPORT

LOCAL IPR AMBASSADOR	WEBSITE	TELEPHONE NUMBER	EMAIL
Innovation Norway Agder	https://www.patentstyret.no/	(+ 47) 22 00 25 00 (+ 47) 22 38 73 00	Post@patentstyret.no

The IPR services provided by IN are a supplement to specialised IPR services offered by commercial actors. It focuses on start-ups and SMEs developing innovative products, processes or services. In addition, the Research Council Norway offers consultation with IPR experts free of charge.

MARINE SPATIAL PLANNING

Integrated Management of the Marine Environment of the North Sea and Skagerrak (Management Plan)	http://www.miljodirektoratet.no/Global/Havforum/Meld.%20St.37%20(2012-2013)%20Report%20to%20the%20Storting%20(white%20paper)%20Integrated%20Management%20of%20the%20Marine%20Environment%20of%20the%20North%20Sea%20and%20Skagerrak.pdf
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Since the adoption of a government white paper on ocean governance in 2001, Norway has worked on the development and implementation of marine spatial planning in the format of regional management plans. In 2013 the Government presented a management plan for the North Sea and Skagerrak. (Norwegian ministry of the environment, 2013) (Hoel & Olsen, 2010)

REGULATION AND STANDARD SUPPORT	
AGENCIES	
Name of agency	Norwegian petroleum directorate (Oljedirektoratet)
Concerning	Governmental specialist directorate and administrative body for the oil and gas industry.
Link to website	http://www.npd.no
Telephone number	+47 51 87 60 00
Name agency	Directorate of fisheries (Fiskeridirektoratet)
Concerning	Management of marine resources and aquaculture.
Link to website	https://www.fiskeridir.no
Telephone number	+47 55 23 80 00
Name agency	Norwegian Maritime Authority (Sjøfartsdirektoratet)
Concerning	Administrative and supervisory authority for the work on safety for life, health, environment and material values on vessels with Norwegian flag and foreign vessels in Norwegian waters.
Link to website	https://www.sdir.no
Telephone number	+47 52 74 50 00
Name agency	The Norwegian Coastal Administration (Kystverket)
Concerning	Responsible for services related to maritime safety, maritime infrastructure, transport planning and efficiency, and emergency response to acute pollution.
Link to website	https://www.kystverket.no
Telephone number	+47 33 03 48 08
Name agency	County governor
Concerning	The County Governor is the state's representative in local counties and is responsible for monitoring the decisions, objectives and guidelines set out by the Storting and government.
Link to website	https://www.fylkesmannen.no
Telephone number	/

CROSS-BORDER FINANCIAL INSTRUMENTS

TYPE OF FINANCIAL INSTRUMENT	Grants
NAME FINANCIAL INSTRUMENT	Horizon 2020
DESCRIPTION	Horizon 2020 is the largest ever European Union (EU) research and innovation programme. It has an emphasis on excellent science, industrial leadership and tackling societal challenges.
TRANSNATIONAL DIMENSION	Norway, as a third country, is eligible for the entire H2020 programme on equal terms as EU Member States.

TYPE OF FINANCIAL INSTRUMENT	Grant
NAME FINANCIAL INSTRUMENT	Interreg Europe
DESCRIPTION	<p>A series of grant funding programmes which aim to generate cohesion across regions in Europe, and generate regional development.</p> <p>Actors from the Agder region are eligible to participate in different Interreg programmes: Interreg North Sea, Interreg Baltic Sea, Interreg Øresund Kattegat Skagerak Interreg Europe.</p> <p>For all Interreg programmes, Norway has its own funding. The funding rate for all four programmes is 50%.</p>
TRANSNATIONAL DIMENSION	Must include other regions in Europe
TYPE OF FINANCIAL INSTRUMENT	Grant
ORGANISATION	Innovation Norway
NAME FINANCIAL INSTRUMENT	Innovation contracts
DESCRIPTION	Through the Innovation contracts, Innovation Norway offers a support program that makes grants available to Norwegian SMEs developing new products or services.
TRANSNATIONAL DIMENSION	Collaboration possible with foreign or other Norwegian companies.
TYPE OF FINANCIAL INSTRUMENT	Grant
NAME FINANCIAL INSTRUMENT	Innovation Norway
DESCRIPTION	Offers funding and technical assistance for the establishment of binding strategic collaboration with a long-term perspective
TRANSNATIONAL DIMENSION	Companies abroad can also be included.
TYPE OF FINANCIAL INSTRUMENT	Grant
NAME FINANCIAL INSTRUMENT	Regional Research Fund
DESCRIPTION	The regional funds were introduced as part of a political reform to transfer power from national to regional authorities. The research funds support R&D projects initiated by companies, public institutions, universities, colleges and research institutions.
TRANSNATIONAL DIMENSION	The projects can include one research institution from inside/outside Norway.
TYPE OF FINANCIAL INSTRUMENT	Grant
NAME FINANCIAL INSTRUMENT	PES 2020
DESCRIPTION	<p>The Research Council of Norway Project Establishment Support directed towards Horizon 2020. The PES2020 scheme is designed to relieve some of the cost burden for Norwegian applicants related to the preparation of project proposals.</p> <p>PES 2020 funding may be sought for:</p> <ul style="list-style-type: none"> • Activities and travel related to preparation of a concrete H2020 project proposal. • Travel to find networks and partners, profiling activities at relevant meeting places for actors without annual framework grant under the PES 2020 scheme.

	<ul style="list-style-type: none"> • Activities to promote and coordinate Norwegian interest in strategy processes and relevant forums within European research and innovation policy cooperation. • Activities related to preparation of proposals for financial support for the process involving the European Investment Bank and European Investment Fund.
TRANSNATIONAL DIMENSION	/
TYPE OF FINANCIAL INSTRUMENT	Grant
NAME FINANCIAL INSTRUMENT	BIA
ORGANISATION	Norwegian Research Council
DESCRIPTION	BIA funds industry-oriented research and has no thematic restrictions. This broad-based programme supports high-quality R&D projects with good business and socio-economic potential.
TRANSNATIONAL DIMENSION	Candidates may submit personal applications for certain international fellowships that the Research Council administers on behalf of other institutions.
TYPE OF FINANCIAL INSTRUMENT	Grant
NAME FINANCIAL INSTRUMENT	Energix
ORGANISATION	Norwegian Research Council
DESCRIPTION	provides funding for research on renewable energy, efficient use of energy, energy systems and energy policy.
TRANSNATIONAL DIMENSION	/
TYPE OF FINANCIAL INSTRUMENT	Grant
NAME FINANCIAL INSTRUMENT	Petromaks
ORGANISATION	Norwegian Research Council
DESCRIPTION	The primary objective of the PETROMAKS 2 programme is to generate new knowledge and technology to facilitate the optimal utilisation of Norwegian petroleum resources and enhance the competitiveness of the Norwegian Continental Shelf compared with other petroleum provinces in relation to costs, greenhouse gas emissions and the environment.
TRANSNATIONAL DIMENSION	<p>Funding under this call for proposals may be sought by companies, groups of companies or trade and industry organisations that have been officially issued an enterprise number under the Register of Business Enterprises.</p> <p>National and international research groups may participate in the project as partners who perform research activity, but they may not contribute in-kind R&D activity to the project.</p> <p>Other international partners may participate in the project, but their costs for in-kind R&D activity will not be eligible for support from the Research Council.</p>
TYPE OF FINANCIAL INSTRUMENT	Grant
NAME FINANCIAL INSTRUMENT	DEMO 2000
ORGANISATION	Norwegian Research Council
DESCRIPTION	DEMO 2000 seeks to ensure long-term competitiveness in the petroleum industry and continued profitable and sustainable development of the petroleum resources on the Norwegian continental shelf. The objective of the programme is to qualify new

	technology and systems in close collaboration between the supplier industry, oil companies and research institutions.
TRANSNATIONAL DIMENSION	Normally, applications for research funding must be formally submitted by a Norwegian company or institution. Candidates may, however, submit personal applications for certain international fellowships that the Research Council administers on behalf of other institutions.
TYPE OF FINANCIAL INSTRUMENT	Grant
NAME FINANCIAL INSTRUMENT	ENOVA
DESCRIPTION	Enable undertakings to increase the share of renewable sources of energy in total energy production and contribute thus to a higher level of environmental protection.
TRANSNATIONAL DIMENSION	Normally, applications for research funding must be formally submitted by a Norwegian company or institution. Candidates may, however, submit personal applications for certain international fellowships that the Research Council administers on behalf of other institutions.
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SME-ORIENTED INCUBATOR SUPPORT



NAME: Innovasjon Norge

MAIN TOPICS Innovation Norway offer help to Entrepreneurs and promising Start-Ups who has growth ambitions and established an innovative business concept which represent something new and significant in the market.
Focus is on:
Start-ups and SMEs
Growth companies and clusters
Internationalisation

TELEPHONE +47 80 05 07 89

WEBSITE <https://www.innovasjon Norge.no>



NAME: Innoventus Sør

MAIN TOPICS Regional innovation company, SIVA incubator (The Industrial Development Corporation of Norway), FORNY agent and Pre-seed Administrator representing Southern Norway. They focus on innovation, which is a prerequisite for ensuring growth, new creation and renewal in the region.

ADDRESS Kristiansand – Tordenskjoldsgate 9 (5. etg), 4612 Kristiansand
Grimstad – Terje Løvåsvei 1, 4879 Grimstad

WEBSITE <https://innoventussor.no>



NAME:	Connect Norge
MAIN TOPICS	Connect is a network organisation focusing on further development of Start-ups and early phase companies. Connect provides a variety of services, among them: <ul style="list-style-type: none">• Connect Springbrett• Connect Mentor• Connect investor forum
ADDRESS	Thormøhlens gate 51 5006 Bergen
WEBSITE	http://www.connectnorge.no

NAME:	EVA-Senter
MAIN TOPICS	EVA-Senter (Establishment Center Vest-Agder) will help people develop ideas and tomorrow's business by providing the entrepreneur with the best possible technical assistance related to his needs
ADDRESS	Etablerersenter Vest-Agder (EVA) holder til i 3. etasje i Rådhusgata 12 A, i Torvkvartalet
WEBSITE	https://evasenter.no



NAME:	Bergen Teknologioverføring AS (BTO)
MAIN TOPICS	BTO works to develop innovation and commercialisation of research in the Bergen region. We are the regional centre of expertise for innovation and commercialisation of research results.
ADDRESS	Thormøhlensgate 51, 5006 Bergen
WEBSITE	https://bergento.no

COMMENTS AND EXPERIENCE

None of those incubators is particularly specialized in blue businesses. They have a general approach, covering all kind of business sectors.



NAME	Mechatronics Innovation Lab (MIL)
TYPE OF TECHNOLOGY	<p>Mil is part of the national infrastructure for pilot testing and experimental development of products, systems and services. Particularly related to the offshore industry and manufacturing and material process industries.</p> <p>Services:</p> <ul style="list-style-type: none"> • electrical and hydraulic components and systems for technical qualification • new sensor and instrumentation technologies • prototypes and scale models of new products • automated processes such as robotic welding • materials and machine parts, e.g., for qualification of new production method
WEBSITE	https://www.mil-as.no/



NAME	Offshore Simulation Center (OSC)
TYPE OF TECHNOLOGY	<p>The world leader in delivering software and hardware simulations for:</p> <ul style="list-style-type: none"> • Prototyping operations/challenges • Gaining common understanding/training personnel • Reducing time and costs for all operation
WEBSITE	https://osc.no/



NAME	SINTEF OCEAN
TYPE OF TECHNOLOGY	Sintef ocean conducts research and innovation related to ocean space for national and international industries. Their ambition is to continue norway's leading position in marine technology and bio marine research.
WEBSITE	https://www.sintef.no/en/ocean/



NAME	Norsk katapult
TYPE OF TECHNOLOGY	<p>Norsk katapult is a scheme that helps to establish and develop catapult centers - making the road from the concept stage to market introduction easier for Norwegian industry. The scheme has been established to enhance the innovation capacity of small and medium-sized businesses across the country.</p> <p>The ambition is to build an infrastructure for innovation with 7-9 national catapult centers in areas of great value for the future industry in Norway. Siva manages the scheme on behalf of the Ministry of Food and Fisheries, and in close cooperation with Innovation Norway and the Research Council.</p>
WEBSITE	https://norskkatapult.no/



NAME	Norce
TYPE OF TECHNOLOGY	Research and innovation in energy, health care, climate, the environment, society and technology. Their solutions address key challenges for society and contribute to value creation on the local, national and global levels.
WEBSITE	https://www.norceresearch.no/en/



NAME	METCENTRE
TYPE OF TECHNOLOGY	<p>provide facilities and assistance for testing new marine renewable energy technologies under various conditions.</p> <p>Test areas:</p> <p>Deep water: 200 meters depth, 10km from shore.</p> <p>Shallow water: 20-40 meters depth, 1 km from shore.</p>
WEBSITE	http://metcentre.no

LITERATURE LIST

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