



# The road to an emission-free maritime industry

GCE Blue Maritime's strategy towards 2030

# The world's first **emission-free** maritime cluster

The year is 2030. In the ports of Møre, you are witnessing something you did not think was possible a few years earlier. The ships that dock are becoming emission-free. We can soon wave goodbye to clouds of exhaust fumes from sea traffic over villages and towns.

The maritime cluster at Møre has never been in the habit of taking baby steps or accepting yesterday's solutions. On the contrary, the cluster has always aimed high, and now it is doing it again. The ambition is for GCE Blue Maritime Cluster to become the world's first emission-free cluster.

The goal is to design, build, equip and operate the zero-emission vessels of the future. GCE Blue Maritime, together with a broad-based working group with companies from the entire cluster's value chain, has prepared the cluster's new strategy. This strategy has been named the "New BLUE Deal - the road to an emission-free maritime industry".

The maritime industry and transport currently account for two to three per cent of global CO<sub>2</sub> emissions, which is equivalent to around one billion tonnes of CO<sub>2</sub> per year. This means that greenhouse gas emissions must be significantly cut. Norway's goal is to reduce CO<sub>2</sub> emissions by up to 55 per cent by 2030 compared to 1990. So you can safely say that we have set ourselves an ambitious goal.





## How can we succeed?

Through the Paris Agreement, the world has committed to limiting global warming to well below two degrees. GCE Blue Maritime supports the goals and ambitions of the Paris Agreement, and will work to ensure that the maritime industry is an important part of the solution to climate challenges.

To succeed, GCE Blue Maritime has established a Green new-build programme, where the goal is to develop full-scale zero-emission vessels to be put into commercial operation.

GCE Blue Maritime has also established a Green conversion program, where the goal is to install emission-free propulsion systems in the existing fleet, and to establish circular value chains for condemning the part of the fleet that is not suitable for green conversion.

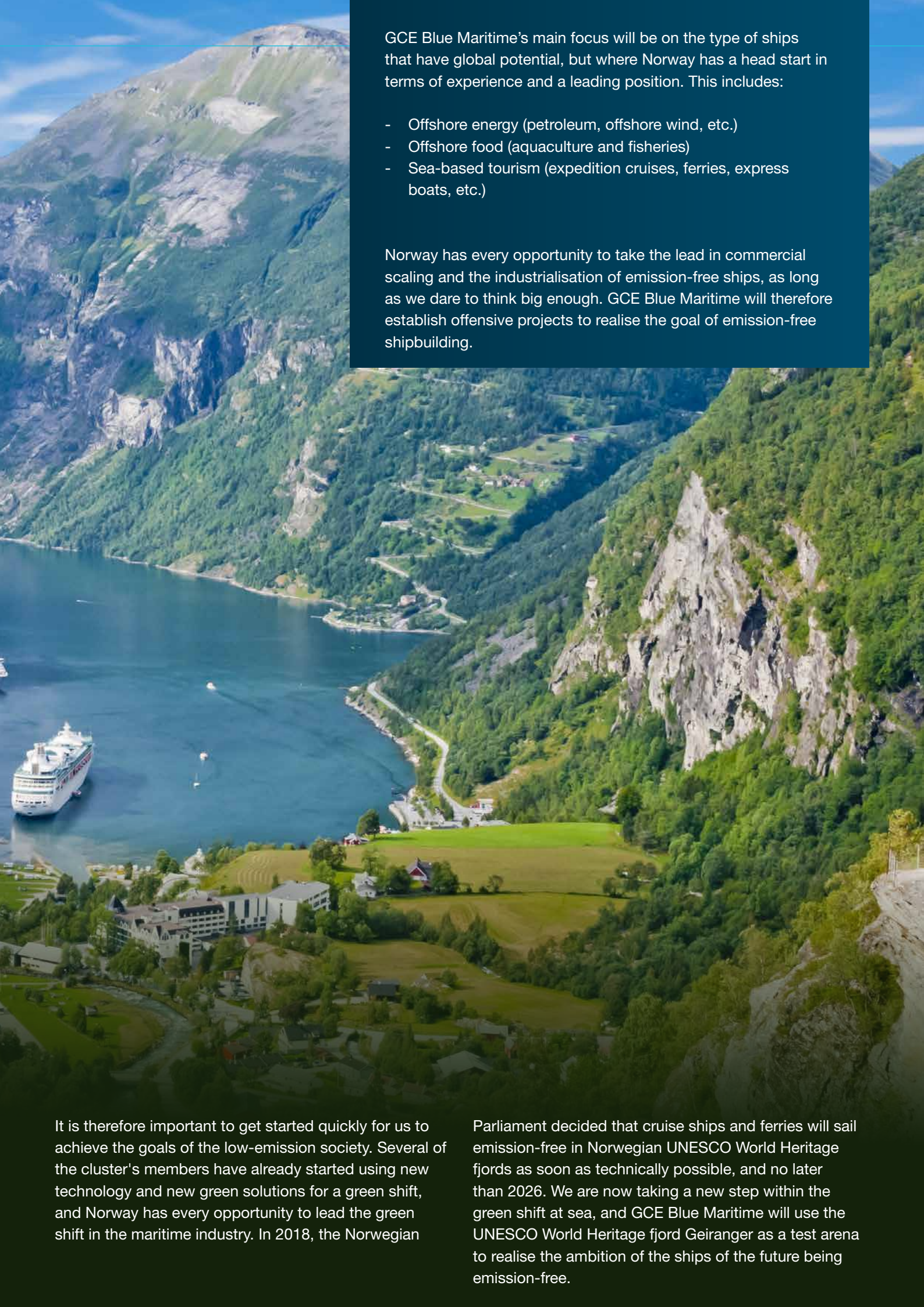
We are in a position to do this because we are a unique, innovative and complete cluster of shipyards, designers, equipment manufacturers, service providers, shipping companies and academia. We are able to do this because the cluster has always worked closely together and used its expertise to find effective solutions to customers' most pressing challenges.



# Why Norway?

Norway's total coastline measures 100,915 km, which is the second-longest in the world after Canada. We have over 150 years of experience as a shipping nation, and with the coast right outside our door, we have a natural responsibility to lead the way forward.

We learn from the best environments both in the world and here at home, and we will create new, smart and green solutions. But such solutions are not yet fully tested on the assembly line. The green shift is taking place gradually in a world where technology is changing rapidly, and many alternative solutions are to be tested.



GCE Blue Maritime's main focus will be on the type of ships that have global potential, but where Norway has a head start in terms of experience and a leading position. This includes:

- Offshore energy (petroleum, offshore wind, etc.)
- Offshore food (aquaculture and fisheries)
- Sea-based tourism (expedition cruises, ferries, express boats, etc.)

Norway has every opportunity to take the lead in commercial scaling and the industrialisation of emission-free ships, as long as we dare to think big enough. GCE Blue Maritime will therefore establish offensive projects to realise the goal of emission-free shipbuilding.

It is therefore important to get started quickly for us to achieve the goals of the low-emission society. Several of the cluster's members have already started using new technology and new green solutions for a green shift, and Norway has every opportunity to lead the green shift in the maritime industry. In 2018, the Norwegian

Parliament decided that cruise ships and ferries will sail emission-free in Norwegian UNESCO World Heritage fjords as soon as technically possible, and no later than 2026. We are now taking a new step within the green shift at sea, and GCE Blue Maritime will use the UNESCO World Heritage fjord Geiranger as a test arena to realise the ambition of the ships of the future being emission-free.



# An active driving force

Norway's proud maritime traditions must now be brought into the modern day so that we can realise the low-emission society. GCE Blue Maritime will play a crucial role in the work of making tomorrow's maritime industry emission-free.

We will front the cluster's common strategy, implement idea labs to evolve new angles on markets and solutions, and contribute to finding external partners, customers and competence environments.

GCE Blue Maritime will search for and find customers who wish to use emission-free ships (new or rebuilt) in commercial operations. The green maritime shift is constantly evolving, which means that the risk and cost are higher in the start-up phase. It is therefore important to establish close cooperation between the authorities, both in Norway and the EU, and the maritime industry.

Going forward, a public-private partnership must therefore be developed to ensure that green technology and emission-free solutions can quickly be:

- piloted
- scaled
- industrialised
- exported

We will focus on ship types with which the cluster has experience and which are important for key Norwegian industries such as petroleum, aquaculture, fishing, ferries and cruises. Battery, LNG and fuel cell technology and the handling of hydrogen and ammonia are all based on Norwegian research, yet we have not succeeded in building a comparative advantage in these areas. This will change in the future with the ambitions of GCE Blue Maritime's strategy towards 2030 and the maritime industry.



Read the  
strategy  
document



ZERO EMISSION  
powered by Nedstack

# An ocean of opportunities

[www.blumaritimecluster.no](http://www.blumaritimecluster.no)

For generations, the blue ocean space cluster at Møre has been a pioneer in technology development and offshore operations. The steering group is convinced that the green shift is going to change the global maritime industry. We therefore want to meet this development offensively and build global competitiveness. The year 2030 is just around the corner and we have no time to lose if we are to reach our ambition of an emission-free maritime industry.

This is our competitive advantage;  
this is where we can win.

Watch our film

*"We are creating the strategy for the future. Experience and knowledge built up over generations has made the maritime cluster at Møre a world leader. We have turned the ship around before, and now we're doing it again."*

Njål Sævik of Havila.

English  
brochure