

Not just a visual treat, the new hybrid tour boat operated by The Fjords is a technical marvel as well, introducing the cleanest, most efficient and quietest marine technology to a place that definitely deserves careful treatment.

A vision for the fjords

The Brødrene Aa-designed and built *Vision of the Fjords* whisks tourists at a brisk 18 knots to Nærøyfjord, a Unesco World Heritage Site. Once on site, batteries send the striking craft gliding silently and with no emissions through one of the most spectacular of Norway's many stunning fjords.

"Many of the tourist boats in this area, including some of our own, are 50 to 60 years old," said managing director Rolf André Sandvik of The Fjords in a May 2016 press release. "As operators, we are drawn here by the pristine environment and then proceed to poison it. It's our vision to demonstrate that there is another way – by building a fleet that utilises the very latest clean technology to preserve this ancient, natural treasure that surrounds us."

Forty metres long and with a passenger capacity of 400, the design, dubbed Seasight, has demanded a re-write of the rulebooks in order to accommodate her many revolutionary innovations. "This is the world's

first hybrid ship built with carbon fibre sandwich, and building a prototype is never easy," Sandvik acknowledges.

Hybrid harmony

Power systems on board are every bit as modern as the design itself. ABB has supplied a compact, lightweight version of their cutting edge Onboard DC grid to manage and control energy flow between the charging station, batteries, engine and propellers, ensuring the quietest and most efficient operations available.

"This is a typical example of the green wave that we are seeing now: using batteries in combination with the machinery, but also using DC power distribution instead of AC that we have been used to seeing," said Jorulf Nergård, Head of Short Sea Shipping at ABB Norway. "And if we had bought the batteries today, we would have twice the amount of energy with the same weight, more or less. Development has moved forward just that fast."

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The Vision of the Fjords

Connecting with nature

The *Vision of the Fjords* transports passengers from around the world, offering them a unique opportunity to connect with Norwegian nature:

The Freedom

Perhaps the most striking feature of the Seasight design at first glance are the walkways winding up the sides of the craft to the top deck. Inspired by

a twisting mountain path, the concept allows for full freedom of movement on and around the entire ship.

The Scenery

“Passengers can walk on this ramp and not be in the back seat or the back row when they are going through the most spectacular fjords of the west coast,” said Sandvik. “And with the panorama windows for inside passen-

gers, everyone will have a front row seat on this ship.”

The Silence

Adding to the experience will be the absence of disturbing engine noise – and exhaust fumes – when cruising Nærøyfjord on electrical power at a serene eight knots, the legal limit in the fjord.

Travelling light

The Seasight concept was conceived not just to enhance the tourist experience, but to lighten the footprint of tourism in a sensitive environment. Carbon fibre construction reduces weight, which in turn reduces energy consumption, allowing the *Vision of the Fjords* to make its runs using less fuel, and running longer on battery power. Batteries will be charged by the ship's own motor, and from shore connections.

Rolf Sandvik and The Fjords have plans to stay the green course set by the *Vision of the Fjords*: “With the backing of our owners Fjord1 and

Flåm AS we'll be looking to expand our fleet with more vessels like the *Vision of The Fjords*. These newbuilds will eventually replace our existing vessels, allowing us to minimise our emissions while maximising the experience of a growing number of visitors to this incredible natural landscape.”

All in all, the *Vision of the Fjords* delivers not just spectacular views, but an inspiring vision for cleaner, sustainable and more enjoyable touring of the pristine waterways of the world.

Comments from Jorulf Nergård were made to Engineering and Technology Magazine



