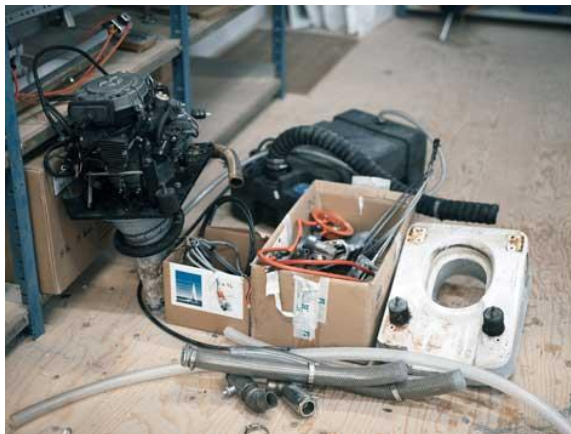


# Fossil out – electric in. He will sail 2000 Nautical Miles to make a climate statement.

**Without a drop of fossil fuel or a minute of shore power he will sail at least 2000 NM and visit marinas in seven countries around the Baltic Sea. The fossil fuel engine is gone and he is installing the first electric pod drive by Torqeedo in Sweden. The propeller can charge while sailing and the rest will be filled up with solar panels on deck and in his sails.**

It may not sound so daring in comparison to other great adventure projects. But sailor Björn Bertoft has something else in mind. He aims to meet ordinary boaters and chat about sun, wind and water in the marinas along the route: Oslo-Gothenburg-Skagen-Aarhus-Kiel-Rostock-Copenhagen-Malmoe-Bornholm/Christainsø-Åhus-Karlskrona-Kalmar-Borgholm-Visby-Riga-Tallinn-Helsinki-Turku-Mariehamn and Stockholm.



The old gasoline engine, tank and hoses went out and has been replaced by a small plug from the electric pod drive and a cable to the batteries, control unit and throttle.

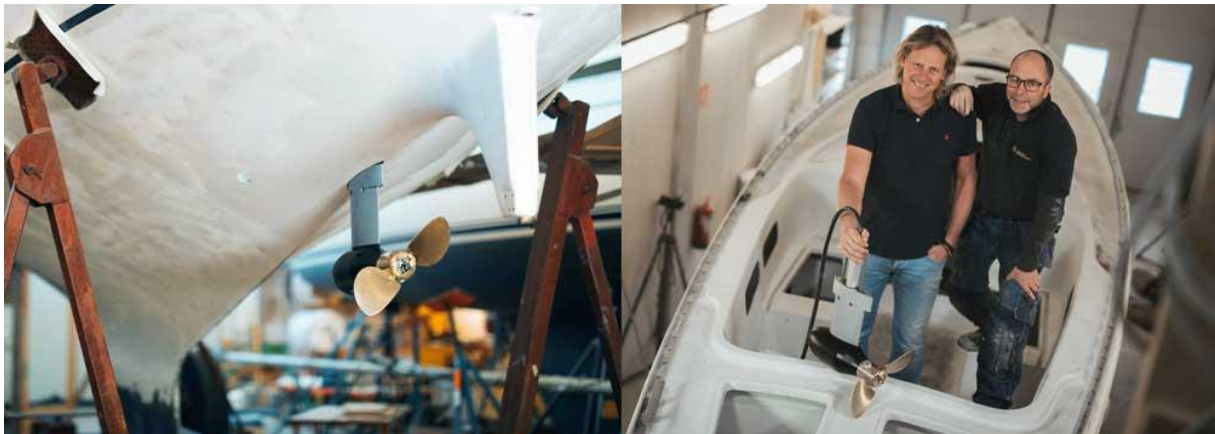
**Björn Bertoft:**

*"I hope this journey will be perceived as a sincere "climate statement" and help to boost fossil-free thoughts by ordinary boat people. Sailors are also using quite a bit of fossil fuel. The paradox is that we sail out to the most remote and sensitive islands, longing for silence, natural beauty and peaceful sunsets. But well out there, and by mere habit, we start our fossil fuel engines and pour out CO2 into the atmosphere in order to charge our batteries for cooler drinks and more TV-time onboard. Certainly, sailors have come a long way with solar and wind power but I'd say we should go "all in" and position ourselves in the absolute forefront when it comes to the switch into a completely fossil-free life on water."*

Marine electric engines represent a fraction of all boat engines. In Sweden alone there are about 800,000 recreational boats, of which about 50% are motorized. The proportion of electric engines is increasing and there is a huge environmental benefit built into this new technology.

The new electric pod drive has been developed by German manufacturer Torqeedo, who for several years produced electric power outboard engines. Now they are targeting the more or less completely dominant fossil fuel-based inboard market.

Apart from being able to charge the batteries with the propeller while sailing, Björn got rid of the heavy engine, the tank, the lead batteries, all hoses, tubes and holes through the hull and deck. With them, the noise, the smell, the emission, the risk of leakage and the cost of fuel also disappeared. Instead, he installed an electric Cruise Pod 4.0 where the previous drive was placed. Now there is only a small plug sticking up, with a cable connected to the engine's control unit, throttle and the two Lithium batteries. His sailboat, a Smaragd, is 34 feet with a displacement of 3.3 tons. For boats less than 3 tons, it is enough with the smaller model Cruise 2.0 and one Lithium battery.



The electric engine is placed inside the pod drive and the folding propeller can also be used to charge the batteries when sailing. To the left: Björn Bertoft with Niclas Lindell at the ship yard in Lidköping, Sweden.

Björn continues:

*"Tesla have kicked around in the car industry on land quite a bit, forcing the fossil fuel car industry to admit that they not only can – but suddenly also want to – produce durable electrical vehicles with long ranges. I am happy to support Torqeedo create the same tumbling development on water. Every installed electric drive in a boat is a victory for all of us – it is simply smart, sustainable and nice."*

Lasse Johansson, Business Unit Manager at KGK Motor AB / Torqeedo:

*"We think this is a honorable initiative and look upon the project as a win far beyond the fact that we are agents in Sweden for a new type of marine electric engines. There is good development both in marine electric engines and traditional compression engines and of course we follow the development very carefully in both the electric and non-fossil fuel sectors. Björn is a true sailor and an early electric enthusiast, so we support his ambitions and look forward to that our dealers and curious boat owners along the trip gets a chance to look into a boat that sails completely fossil fuel-free already this summer."*

### **KGK/Torqeedo**

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### **More about KGK/Torqueedo marine engines**

Torqueedo is one of 500 brands that KGK Motor distributes in Sweden. Torqueedo develops electric motors for boats and are introducing "Fixed Pod Drives" – a new range of engines intended for sailboats and displacement boats. The space-saving electric engines are available in models 2.0, 4.0 and the brand new 10.0. The unit's engine is located in the gondola placed under the hull and thereby does not take any space inside the boat. The engines are preferably powered by Torqueedo Power 26-104 lithium batteries which can be charged with the folding propellers during sailing.

[www.kgk.se/en](http://www.kgk.se/en) [www.torqueedo.com](http://www.torqueedo.com)



### **More about the project: Youth, micro plastics, solar panels and a documentary film**

In the marinas, meetings in the cockpit are planned with local "green-ups" and young sustainability evangelists. Interviews on new climate-smart solutions, thoughts about the future and groundbreaking scientific results will be a red thread in the story, shared on social media, and after reaching the final destination in Stockholm, it will be part of a documentary film and an educational online program.

Solar cells in sails, on deck and in portable versions will be tested. Björn and his crew will trawl for micro plastics to collect an image of the water situation along the waters in Sweden and neighboring countries. This will be performed under scientific guidance of Professor Martin Hassellöv, Department of Marine Sciences at University of Gothenburg. Martin is also the skipper of Hrimfare – a Challenge 67 sailing yacht, equipped for scientific assignments worldwide, with a specialty in research and communication on marine plastic debris (official UN flagship for the UN campaign SafePlanet).

The project is supported by: KGK / Torqueedo (electric drive), Erlandssons Brygga (navigation and safety equipment), Bennis (rigging and deck equipment) and Lidköping Båtsnickeri (ship yard: installation and renovation).

Project website

[www.100sunwindwater.com](http://www.100sunwindwater.com)

Professor Martin Hassellöv, University of Gothenburg

<https://marine.gu.se/english/about-us/staff?languageId=100001&userId=xhassm>

Hrimfare Expeditions

<http://hrimfare.com>