# Fuels of the future
## Panel: Developing and integrating alternative fuels

Sustainable fuels and electrical propulsion systems from renewable energy are the beacons of hope for the future of the boating industry. What opportunities do the latest developments offer for the market and where are the problems?

Bart Hellings (Good Fuels, Director), Paolo Bertetti (Sanlorenzo, Vice President Technical & R&D), Algara Castle (eFuel Alliance, Head of European Affairs), Stefano Pagani Isnardi (Confindustria Nautica, Head of research and market intelligence), Sveta Ukkonen (Neste Corporation, Head of Marine Fuels & Services) talked about the potential applications of synthetic and biofuels at the blue innovation dock at boot Düsseldorf.

Numerous companies in the boating industry have made it their mission to establish climate-neutral alternatives to fossil fuels. Two possibilities are biodiesel from renewable raw materials and fuel cells. Various feedstocks can be used to produce biodiesel, such as cooking oil that has already been used, animal fats from slaughterhouses or vegetable oils. Wood, algae and organic waste can also be used for production.

As speakers at the Sustainability Forum emphasised, it is likely that a plateau in the maximum production of these fuels will be reached within the next ten years. The mass of available feedstock is limited. Technical developments could make it possible to tap into additional raw material sources . However, manufacturers see the great advantage of biodiesel in the fact that it offers a solution not only for new boats, but above all for the hundred of thousands of boats already in circulation. In many cases, these could immediately convert their operations to more sustainable biodiesel without needing a new engine and thereby drastically reduce CO2 emissions. This is especially important given that due to the long life of boats, the percentage of new boats in overall traffic is very low.

Another way to use boat engines in a more environmentally friendly way are synthetic electric fuels. This involves converting electrical and primarily renewable energy into chemical energy and thereby creating emission-free alternatives to diesel and petrol. However, as the participants at the bid agreed, this type of propulsion is not the ultimate solution for all boats, and at best a partial solution.

Although renewable and green fuel manufacturers provide many solutions for boaters, the transformation of industry is a long process. One problem is the fuel station infrastructure at marinas. The availability of alternative fuels is (for now) too limited. In addition, boaters and buyers are rarely willing to pay higher prices for boats or engines. This is true as long as the development in the marinas has not progressed so far that refueling with the new fuels is just as convenient, safe and reliably available as with current diesel or petrol. At this point, according to the participants, there is a need for exchange between marinas and manufacturers, as well as for pioneers among them who are willing to take risks. Furthermore, the participants of this panel also call for political support .