A new luxury yacht uses solar-powered engines with AI-enabled controls for fossil fuel-free cruising.

Yachting is a sport associated with the wind and the outdoors. So it may be surprising to learn that the average 80-foot (25 metre) yacht burns around 100 litres (26 gallons) of fuel an hour at 10-knots of speed – not exactly environmentally friendly. Now, Swiss company SolarImpact Yacht has built the first yacht that is entirely solar-powered. All of the systems on the yacht use the sun as their primary energy source. The 78-foot yacht includes 300 square meters of solar panels. Additionally, this solar array powers an 800-kWh battery, equivalent to around 10 hours of cruising. This, in turn, powers two liquid-cooled, brushless, permanent magnet electric motors. As a backup, there is also a pair of 87 horsepower diesel engines.

In addition to the solar power, the SolarImpact yacht also uses innovative stabilising technology in the form of twin, torpedo-shaped buoyancy hulls located under the water surface. The hulls reduce rolling by as much as 90 percent, allowing the boat to remain level, even in strong swells. The interior is very spacious, with 220 square metres of living space and a 100-square-metre salon with a 360-degree view. There is accommodation for 10 guests and a crew of one.

A single crew member can pilot the yacht because all the key systems are highly automated, and aided by an on-board computer equipped with artificial intelligence. The yacht has a top speed of 22 knots. Advantages of the electric drive include a long service life, low maintenance, minimal vibrations, quiet running and no exhaust emissions. On the high seas, the yacht glides almost silently and without swaying.
Takeaway:
At Springwise, we have seen an array of innovations in solar power technology. These have included a solar plane and hybrid solar panels. As the world's population is continuously increasing and the global economy is expanding, preserving the environment has never been more important. Innovation has supported environmental efforts by bringing to life more efficient transportation systems and raising efficiency standards for buildings. In addition, innovation has also helped to promote and develop renewal energy technology for everyday use. Will SolarImpact's engines allow a life on the water without fossil fuels?