

PRESS RELEASE



Austrian start-up Volta future GmbH, located in Upper Austria, has invented and produces the first maintenance-free electrical iWOP in the world with universal application on the water:

Volta future sets new international standards in electro-power drives for motorboats

Altmünster/Schörfling, 00 September 2022. The electrification of power drive solutions continues its unstoppable rise in wet environments. By 2025, every fifth new motorboat licenced worldwide will have an E-drive. The market for outboard and inboard motors is worth more than five billion Euros every year and the trend is upwards. This means good prospects for the Austrian start-up Volta future. With the invention and development of a completely new concept for electrical iWOPs (invisible waterline outboard power-drive), the company based in Upper Austria is breaking new ground in the world of motorboats.

Combustion engines are still polluting lake and sea water with toxic exhaust fumes, oil and fuel. In Germany alone, around 73,000 tonnes of CO₂ are emitted by sports craft every year. On many European lakes and rivers, and in cities, this has led to a ban on internal combustion engines. For boatyards there has so far been no attractive solution for equipping boats with electric power drives that could be achieved quickly and did not involve time-consuming or cost-intensive rebuilding of the boat. With the invention of the iWOP by Volta future, all this has now changed.

Increasingly restrictive environmental regulations and the banning of motorboats on inland waterways, combined with increasing environmental awareness amongst the population, are accelerating the switch to alternative drive technologies for boats. The commitment of the Austrian government and the European Union (the Green Deal) is also encouraging the trend towards E-mobility and sustainable power drive systems. By 2025, every fifth newly licenced motorboat will have an E-drive. According to estimates, by 2027 eleven percent of all outboards for freshwater and salt water will be equipped with an E-drive. The future trend towards environmentally-aware E-mobility will also drastically transform the boat market over the next few years.

Volta future completely rethinks E-mobility on the water

So far there has been no uniform drive system for sports and leisure craft that could be installed regardless of the boat's construction type, without modifying the hull. With the invention of the iWOP, the Austrian start-up Volta future and its founders Dipl.-Ing. Horst Pesendorfer and Thomas Bergmair BSc have now changed all that with the invention of the

PRESS RELEASE



iWOP. With this internationally unique drive system, we intend sustainably to revolutionise E-mobility on the water.

Like many other success stories, the development of our fully electrical outboard power drive started on a sheet of paper and then in a garage by the Traunsee lake. That was five years ago. *“Good electric outboard motors must work easily, but it’s not easy to build them”*, as Pesendorfer puts it in a nutshell. With the innovative, fully electrical iWOP outboard drive system, the founders of Volta future are offering the first environmentally friendly alternative to the combustion engine for high performance classes to be certified in the world, combining a uniform drive concept with E-mobility.

This is a completely new drive form for planing and semi-displacement hulls which, in addition to emission-free operation and a uniform construction method, also offers numerous benefits to boatyards and boat owners such as, for example, low conversion or installation costs, ease of maintenance, individual design, reliability and a lower centre of gravity. *“Our iWOP drive concept is a “ready to run” solution,”* says Horst Pesendorfer. *“This means that the customer gets a complete system with a compatible overall concept and all necessary peripheral equipment, batteries etc. whilst the system can at the same time be rapidly integrated. Our main target group is boatyards, particularly in the Premium segment,”* continues Pesendorfer.

By extending their product range with the iWOP, boatyards can now also easily electrify part of their existing fleet. The plan is also to approach end customers and dealers direct with the new product.

iWOP – intended to revolutionise the E-power drive market on the water

The iWOP is a system which incorporates the advantages of a traditional outboard motor, such as manoeuvrability (steered propeller) and ease of installation, as well as trimming features. The system also has a unique lift function (hydraulic height adjustment – vertical only – in operation to improve efficiency at high speed or manoeuvrability in shallow waters, for example when berthing). All this is combined with the benefits of a traditional z-gear (appearance and low centre of gravity). The iWOP lies precisely below the water line. Compared with standard commercial outboard motors, additional space is created at the stern, as the upper part is not required.

This can be put to good use as a swim platform. And there are other positive effects with the iWOP concept, such as direct cooling through contact with the water without a pump, and a high degree of modularity and variability because the various long shafts disappear. Weight benefits are also associated with the compact design.

In comparison with standard commercial power drives, there is also more space in the boat, eg. for batteries, as the drive is integrated in the outer area. This means that the motor can be used for craft whose construction is designed for z-gears (inboard motors + z-gears) as well as for craft with a transom. This unleashes enormous potential in the retrofit market also.

PRESS RELEASE



Enormous benefits for boat-owners and boat operators

“The high level of performance of our E-power drives means that for the first time worldwide an environmentally friendly alternative to internal combustion engines can be used. Our iWOP is really good fun,” says Pesendorfer of his dual version of the iWOP (133 to 222 kW continuous performance) which enables 10-meter yachts to glide smoothly in the water. Even for uses where speed is crucial (eg. emergency rescue boats) environmentally friendly systems can be used, thanks to the internationally unique E-power drives. In sensitive waterways (protected and specially designated areas) the E-power drive in many instances makes operating a boat possible for the very first time.

Oil-free and maintenance-free operation

On all outboard motors currently available on the market (including E-outboards), the torque generated through the shaft or gearwheels is transferred to the propeller shaft. This is why even with E-outboard motors, a certain quantity of oil has so far been required. *“Through its innovative use of a timing belt, the iWOP is the first fully oil-free and thus maintenance-free drive on the market worldwide. We are really proud of this,”* says Pesendorfer. Operating costs are also reduced. The redundant (dual) drive system is also fail-safe.

Market worth billions through E-mobility on the water

With the iWOP we want to sustainably revolutionise the range of applications of E-power drives for boats. *“Since we presented our system at the international trade fair Electric & Hybrid Marine in Amsterdam, we have received an enormous number of enquiries,”* says Pesendorfer. *“Boatyards are interested in prototypes, we have already had enquiries relating to the supply of hundreds of motors. The market has enormous potential,”* according to Pesendorfer.

The worldwide market for outboard motors in all performance classes amounts to around five billion Euros. In the iWOP’s current performance class the figure is still over two billion Euros (including inboard systems that can be replaced with the new system).

In the electrical sector, the global market for motors in the iWOP’s performance class will very soon reach half a billion Euros – at the moment there is no well-known manufacturer offering smart electrical systems in this performance class as a series product, and the lack of alternatives is again putting a brake on the market switchover to electro-mobility. This is precisely where Volta future comes in.

PRESS RELEASE



All the benefits of the iWOP at a glance:

More usable space in the boat than with inboard systems, the possibility of space for swim platforms, in contrast to normal outboard systems.

- the highest performance electrical “outboard motor”
- a choice of versions (66 – 222 kW continuous output, in dual form up to 444 kW)
- can be used all-year-round: no need to refit (in summer) on waters where combustion engines are banned
- cost savings due to maintenance-free and oil-free system
- long life
- due to the space-saving design, on boats designed for an outboard motor it is possible to retro-fit and use a swim platform
- the dual system guarantees high reliability (2 independent systems/motors)
- efficient partial-load operation due to the use of 2 motors
- improved glide behaviour even on larger boats (6 – 14 m) due to high torque, plus the motor housing works like a hydrofoil

About Volta future GmbH

The offer for electric marine power drives was negligible, if not completely absent, at the time the company was founded – particularly in high performance classes. This is why Volta future set itself the aim of revolutionising the boating world with its technology developed in Upper Austria and its understanding of smart, high-performance and robust outboard motors. With the iWOP, Volta future GmbH is developing the first maintenance-free, universally usable drive system on the water worldwide. The aim of this innovative company is to become and remain a leading player in the technology of E-power drives for marine craft.

Captions: (Photos free for use, photo credit hali)

Photos 1+2: The Voltafuture founders Dipl.-Ing. Horst Pesendorfer and Thomas Bergmair with their globally unique iWOP power drive system for boats.

Photo 3: The iWOP in use: high-performance, environmentally friendly, maintenance-free

Questions - Contact for press release:

Gerald Kneidinger, Tel.: +43 664 548 50 67