

Press release

Intelligent capital to secure global production of green hydrogen

Over the past 12 years, Denmark-based innovators GreenHydrogen have invested more than DKK 100 million in making green hydrogen financially viable by developing highly efficient electrolyzers. With the assistance of Nordic Alpha Partners, the Danish 1st growth/venture fund, GreenHydrogen is now ready to conquer the global market. And the timing could not be better, now that the whole world is talking about how to get its hands on enough green energy to replace conventional, polluting sources of power and fuel.

The objective of the partnership between GreenHydrogen and Nordic Alpha Partners is to achieve a leading position on a market that was valued at DKK 6 billion in 2018, and that continues to see strong growth.

Not only is there potential to create a great many new jobs in Denmark, but GreenHydrogen's hi-tech electrolyzers can also help make Denmark a pioneering country in the fields of green energy and energy efficiency, and help the Danish government achieve its ambitious goal of having at least 50 per cent of the country's energy requirements covered by renewable sources in 2030.

The investment agreement with Nordic Alpha Partners is to assist GreenHydrogen in globalising sales and scaling production. While the agreement was actually concluded in August, the working relationship and the preparations for conquering the global market have been under way for months.

According to Jakob Fuhr Hansen, one of the two partners from Nordic Alpha Partners working with GreenHydrogen, the fund is convinced that the enterprise has the potential to achieve a leading global position because it has succeeded in developing an innovative and effective electrolyser for the extraction and storage of green hydrogen that is both cheaper and more efficient than those of its competitors.

The need for production of green hydrogen is huge, given that businesses and governments around the world consider precisely this will play a key role in the production of climate-friendly energy in the future. Hydrogen is already used in large volumes in a variety of industries and for fuel in cars and buses. What's more, hydrogen is a potential solution to the problem of storing energy from sustainable power sources such as wind turbines and solar cells.

The biggest challenge faced by GreenHydrogen has actually been to find investors who understand that the industry is complex and needs more than simply "ramping up the marketing initiatives."

GreenHydrogen CEO Niels-Arne Baden says: *"I've talked to a great many interested investors in recent years, looking for someone to help us develop and scale our business. But in most cases, the investors are either too small, and thus not geared to contributing anything other than capital, or they're so big that they're only interested in investing in enterprises that have already established a global presence. The challenge we were facing is that, like many other Danish tech companies, we're somewhere in between. We are among the best of the best in the world in our complicated, hi-tech area, but we also need to become the best at cultivating our business on a global level. This is precisely where Nordic Alpha Partners can help. They fill the vacuum in the*

* <https://www.regeringen.dk/regeringsgrundlag/en-baeredygtig-groen-omstilling/>

investment market that innovative companies need if they're going to make it on the global stage and compete with big multinational players."

Jakob Fuhr Hansen adds on to explain that the investment in GreenHydrogen is also a perfect fit for Nordic Alpha Partners: *"We believe that the small production companies in Denmark and the rest of the Nordic region show huge potential for carving out positions as global leaders. Nordic people and enterprises are skilled at utilising digitalisation and new technology to create products that are both better and cheaper than others. This is exactly what we've shown we can do at GreenHydrogen."*

The current owners have invested in GreenHydrogen on multiple occasions. Preben Jakobsen, Chairman of the Board and one of the investors, fully agrees with Mr. Baden that GreenHydrogen has now reached a point where additional capital and skills are needed to position the company quickly and successfully on the global market.

The fundamental philosophy behind the Nordic Alpha Partners investment model is built on the fund contributing not only capital, but also knowledge and methods to ensure that the companies they invest in get the help they need to set out the right strategy, and to identify and attract the most highly skilled key personnel. In the case of GreenHydrogen, this means specialists in the scaling and automation of production, and in building up a global network of partners with a view to ramping up sales, production and distribution.

Nordic Alpha Partners expects GreenHydrogen to increase turnover exponentially over the coming years. However, this will require that the company establishes a network of partners in record time, backed by a service concept and production capacity that make GreenHydrogen's electrolyzers available wherever there is demand for green hydrogen. The strategy designed to make sure this happens was already in place before the agreement was concluded in August.

"It's a fixed part of our investment process that even before we put pen to paper on an investment agreement, we complete a strategy process and work with the company to draw up a detailed business plan and a description of required skills. If we're going to bring intelligent capital to the table, we also need to understand the business in depth and make sure the chemistry, the founders' ambitions and the management are a match," says Troels Øberg, partner at Nordic Partners and the person responsible for running the investment-strategic and operational roll-out of the global expansion strategy for GreenHydrogen.

The plan is for GreenHydrogen to act quickly to supplement its management team, bring in additional specialists and establish a new production unit with the capacity to produce more electrolyzers faster and less costly than today.

The investment is the fourth made by Nordic Alpha Partners within the past six months. Three of these have applied to enterprises based in Jutland, Denmark. Nordic Alpha Partners is currently working on an investment opportunity in Germany as well, and the plan is for the fund to make additional investments in the immediate future.

Facts about green hydrogen

- Green hydrogen is produced by using an electrolyser to split water into hydrogen and oxygen through the application of sustainable energy generated by wind turbines or solar cells, for example. This makes it possible to store the energy from the electricity in the hydrogen molecules, allowing sustainable energy to be “packaged” in CO₂-free fuel cells that can be used to replace conventional hydrogen or fossil fuels.
- Hydrogen is also a key component in the production of green fuels for heavy transport solutions such as green methanol, ammonia and DME, which have the capacity to one day replace fossil fuels such as the diesel currently used by heavy goods vehicles and ships.
- The market for green hydrogen is expanding rapidly. The Danish energy company Ørsted has announced that it is working to deliver green hydrogen to all B2B customers, and the French government has the stated desire to ensure that up to 40 per cent of the industrial consumption of hydrogen should be “green” by 2027.

Facts about GreenHydrogen

- GreenHydrogen was founded in 2007 and currently employs 12 people.
- Over the past 12 years, the company has invested more than DKK 100 million in the business, a large part of which was supplied by shareholders who include the energy company Nordlys (formerly Eniig), Borean Innovation and Nortec Optomatic – one of the original founders. In addition, the enterprise has received subsidy for development projects from, for example, Innovation Fund Denmark and the EUDP, as well as a loan from the Danish Green Investment Fund which helped finance the first phase of the commercialisation of the GreenHydrogen electrolyser.
- Independent experts have named GreenHydrogen “best in class” in the area of green electrolysis.
- Unique benefits of GreenHydrogen's alkaline electrolysers:
 - Lowest Total Cost of Ownership – i.e. lowest CAPEX and OPEX – in the market worldwide.
 - Modular solution that can be manufactured in large batches, tested and delivered to customers ready for installation and commissioning.
 - GreenHydrogen electrolysers take up much less space than other comparable equipment on the market.
 - The modular concept likewise means that the capacity of the installation can easily be scaled from kW to MW, allowing it to be used in all sizes needed for different applications for hydrogen.
 - Can generate 100% green hydrogen if the energy stems from green sources such as wind turbines.

Facts about Nordic Alpha Partners:

- Nordic Alpha Partners is a first growth/venture fund that was established in 2017 and currently controls DKK 945 million (approx. EUR 127 million).
- Investors in the fund (Limited Partners) are a combination of Danish pension funds and private investors, including the fund's Senior Advisors who are: Christian Clausen (formerly CEO of Nordea), Ole Andersen (EQT, Bang & Olufsen and Danske Bank) and Jim Hagemann Snabe (SAP, A.P. Møller - Mærsk and Siemens).
- From a geographical perspective, the fund focuses primarily on Denmark, Germany and Sweden.
- The fund invests intelligent capital in production enterprises that are typically established locally or regionally and generate a turnover of DKK 20–150 million, companies that use new technology such as IoT and digitalisation to exploit global potential.
- The fund takes a much more operational approach to its investments than venture and growth funds normally do in Europe via a special Value Creation Model developed in-house.
- The fund's lifetime has been set at 10 years, during which time the fund expects to invest in around 15 companies.
- In principle, Nordic Alpha Partners takes on the role of minority shareholder to ensure that crucial competences such as founders and key personnel continue to play a central role in the future success.

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