



ESA Business Incubation Centre in Noordwijk, The Netherlands, was opened in 2004 and is managed by SBIC Noordwijk B.V. The centre offers business start-up support as well as technical expertise in most areas of space technology and know-how. Located at the Space Business Park near to ESTEC, the largest ESA site and the scientific and technical heart of ESA, ESA BIC Noordwijk promotes the exchange of knowledge between advanced technology and space activities, as well as the exchange of technology and expertise between space programmes and terrestrial applications.

Ideevolutie

Ideevolutie develops innovative sustainable energy solutions based on hydrogen technology

I d e e v o l u t i e

Website

Founded in 2012 by

- Sander ten Hoopen

Incubation period

01-06-2012 to 01-06-2014



space solutions

Alumni

About Ideevolutie

Ideevolutie envisions a future where renewable energy technology has become an integrated part of day to day life.

The on-site production and conversion of hydrogen is identified as one of the key enabling technologies in this future energy system.

Ideevolutie's mission is to enable and facilitate the large scale implementation of hydrogen technology for residential, industrial and mobility applications.

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The challenge

One of the biggest challenges that society faces today is the need to move away from the reliance on fossil fuels. It is envisioned that our energy needs are increasingly going to be covered by wind and solar as primary energy sources. The fitting of these intermittent sources into the current energy system requires a new way of storing, distributing and utilization of energy.

Decentralized electricity production provides a more economic and sustainable way to harvest renewable energy. By converting electricity to hydrogen (H₂) by the electrolysis of water, a clean and multi-versatile energy carrier/fuel can be produced. H₂ can be deployed as a transportation fuel in fuel cell electric vehicles, combusted for the production of heat and power in conventional heat engines or converted back on-site into electric power by the aid of high efficiency fuel cells. H₂ can be stored for prolonged periods of time, without any loss of energy.

The solution

Ideevolutie develops cutting edge electrochemical hydrogen technology such as water electrolyzers and fuel cells for several product market combinations. The company offers 'blue print' technology that can be tailored to customer specific requirements.

When applied at smaller scales hydrogen technology offers many advantages to traditional solutions such as batteries.

When applied in the automotive sector - in hydrogen powered fuel cell electric vehicles - hydrogen technology enables efficient and zero-emission mobility.

When applied in a large scale - in Power-to-Gas / Gas-to-Power energy storage plants, hydrogen technology can enable effective balancing of supply and demand of (renewable) energy.

Through intensive research and development, Ideevolutie has advanced hydrogen technology that was originally developed for space missions in the sixties, lowering both cost and footprint and increasing efficiency.
