



10 November 2022

Atmonia ehf.

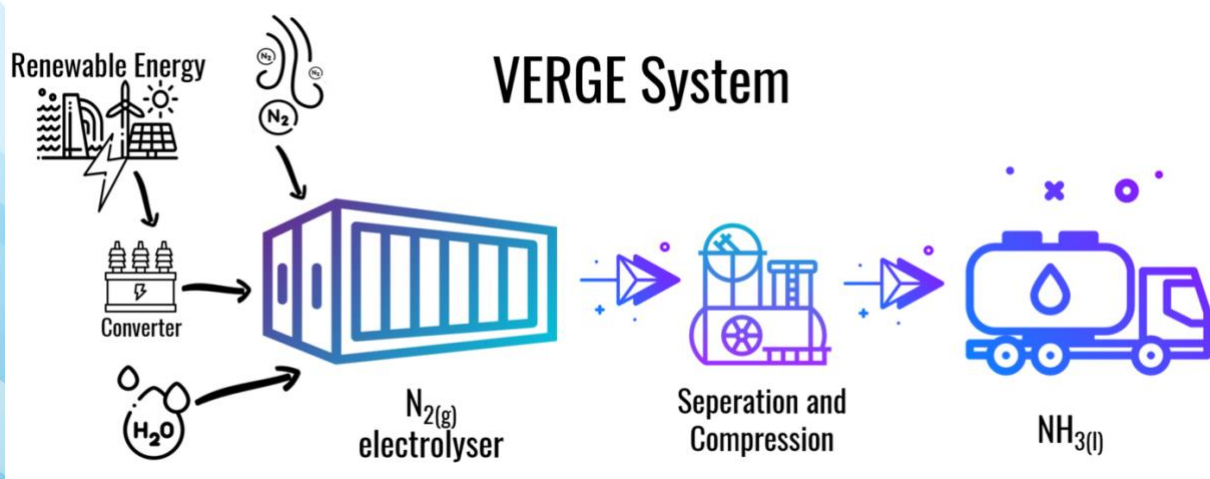
University of Iceland

## New technology contributes towards lower GHG emission

The University of Iceland and Atmonia ehf are collaborating with five other highly respected institutes and companies, RWTH Aachen University, VITO, MS Balti, TEGA and Ecovibes on VERGE, a Horizon Europe project that started the 1 November.

The VERGE project is part of the EU's Horizon Europe programme, that supports research dealing with Europe's greatest current challenges e.g. energy and climate changes. The main objective of the VERGE project is to develop a proof-of-concept N<sub>2</sub> electrolyser to produce liquid ammonia for fuel and fertiliser, designed for direct coupling to sustainable energy sources.

The technology developed within the VERGE project will be the first of its kind, electrochemical process for sustainable anhydrous ammonia production from renewable electricity. The ability to produce sustainable ammonia directly from renewable electricity has high global significance as its current industrial production process (Haber-Bosch) is responsible for 1% annual anthropogenic greenhouse gas (GHG) emissions. Furthermore, the future of e-Fuel is strongly directed towards ammonia. In the field of maritime transport, up to 3% of annual anthropogenic GHG emissions can be avoided by moving from fossil fuels to ammonia as an energy carrier. Through its contribution towards lower GHG emission, the VERGE technology will significantly contribute towards a faster transition to a net-zero greenhouse gas emissions EU economy by 2050.



*The main objective of the VERGE project is to develop a proof-of-concept N<sub>2</sub> electrolyser to produce liquid ammonia for fuel and fertiliser, designed for direct coupling to sustainable energy sources.*

An additional benefit of the VERGE technology is that it will fully utilise the production potential of renewable electricity infrastructure. That is, the VERGE process will be able to bind otherwise curtailed electricity as valuable ammonia for fertiliser and fuel application and thereby increase the value of wind- and solar-installations by ensuring no electricity is lost.



The ability to produce sustainable ammonia directly from renewable electricity has high global significance as its current industrial production process (Haber-Bosch) is responsible for 1% annual anthropogenic greenhouse gas (GHG) emissions. image from the Atmonia website.

Press contacts:

*Atmonia ehf.*

*E-mail: [atmonia\[at\]atmonia.com](mailto:atmonia[at]atmonia.com)*