

# PIB Hydrogen Australia

A Partnership for International Business



Havenbedrijf Rotterdam - © Danny Cornelissen



Netherlands

# Australia and the Netherlands: creating solutions for a hydrogen-powered economy

As countries scramble to reduce their carbon footprints, energy sectors across the world are undergoing a huge transition. Many are turning to hydrogen as part of the mix to reduce carbon emissions as set out in the Paris Agreement. However, hydrogen can only help achieve net-zero emissions if it is produced with green energy. We need to take action to accelerate the global energy transition.

Clean hydrogen is seen to be essential to this transition. As an optimal energy carrier it helps solve the problem of intermittent energy sources like renewables. In Australia, an abundance of natural energy resources in the form of sun and wind makes green hydrogen an attractive and viable proposition. That way, Australia can supplement the energy mix with green hydrogen and contribute to achieving UN Sustainable Development Goal 7 access to affordable and clean energy for all.

## Presenting PIB Hydrogen Australia

The capabilities of this cluster of Dutch hydrogen experts in the PIB (Partners for International Business) H2 Australia span the entire hydrogen chain. Together the partners can help Australia realise its ambitions to produce and export green hydrogen to the global market. To achieve this Australia wants to reduce its carbon emissions, and scaling up its green hydrogen production facilities. The H2 Australia cluster can help it achieve this while keeping costs down. This partnership provides an opportunity for Dutch and Australian companies in the hydrogen chain to exchange knowledge and share innovative ideas. This includes know how on hydrogen development from supply chain (production, transportation and storage) to usage and applications (mobility, built environment and energy and industrial sectors). Australia also has a huge potential for developing very large batteries – another essential component for the energy transition.

**Let's create solutions for a hydrogen-powered economy!**



## Developing a hydrogen market together

In early 2023, Minister for Climate and Energy Policy Rob Jetten signed a Memorandum of Understanding for hydrogen with his Australian counterpart Chris Bowen. The MoU marks the beginning of a collaboration focussing on the development of an international hydrogen market and the setting up of export-import hydrogen corridors for green hydrogen.

The hydrogen sector is a strong upcoming industry with high potential for growth in both the Netherlands and Australia. Innovative cooperation between the two countries will drive innovation in the production and supply of hydrogen and accelerate the broad application of hydrogen in industry, mobility and the built environment.

# Partners



**Arcadis** is a leading global company delivering sustainable design, engineering, and consultancy solutions for natural and built assets. Our mission is to support our clients, to meet and to exceed their net zero aspirations in both public and private sectors across the entire hydrogen value chain. We provide services from vision forming and policy advice, all the way through the project lifecycle including asset management.  
[www.arcadis.com](http://www.arcadis.com)



**Elestor** develops large scale electricity storage using Hydrogen and Bromine based on the flow battery principle. The Elestor HBr flow battery has the unique technology where already hydrogen is used as one of the active components. This enables combination of the flow battery with hydrogen storage and integration with electrolyzers for maximum utilization.  
[www.elestor.nl](http://www.elestor.nl)



**Metalot** is a network organisation combining knowledge by scientists, government agencies, students and entrepreneurs. Through research into sustainable, circular processes for metals and renewable energy, Metalot aims to accelerate the energy transition.  
[www.metalot.nl](http://www.metalot.nl)



**Nedstack** is a leading player in the PEM fuel cell industry with a strategic focus and unique track record on the high power and mission critical domain. Nedstack enables the hydrogen economy by developing, realizing, verifying, applying and servicing PEM fuel cell solutions. Its products and services are superior in quality, durability, safety and reliability and are cost competitive.  
[www.nedstack.com](http://www.nedstack.com)



The **Port of Rotterdam** is Europe's largest seaport and energy port. The company manages, operates and supports the smooth and safe flow of shipping to and from Europe and across the oceans. Through digitalisation and innovation, the Port of Rotterdam is transforming into a cleaner and greener port. Rotterdam wants to become an important hydrogen hub for Europe, aiming to import 18Mton of hydrogen and derivatives in 2050 to facilitate the decarbonisation of industrial clusters in North-West Europe, mainly Germany.  
[www.portofrotterdam.com](http://www.portofrotterdam.com)



**Prodrive Technologies** portfolio ranges from embedded computing, motion & mechatronics, power conversion, automation control systems, vision & image processing systems and internet of things products, configurable to their customers' needs.  
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**Royal HaskoningDHV** is a global leading engineering consultancy firm active in mobility & transport, industry & buildings, environment and water & maritime sectors. In the green energy sector, it supports their clients from project inception and feasibility, construction and operations in marine facilities (ports, berths) for liquid cargoes, marine support bases, energy islands, offshore wind installations, logistic modelling, ESIA services and water management consultancy.  
<https://www.royalhaskoningdhv.com/>



**SoluForce** offers a safe, sustainable, cost-efficient and quickly deployable infrastructure for local hydrogen distribution. The non-metallic and flexible pipelines are pivotal in various hydrogen projects, ensuring minimal TCO and CO2 emissions. With over 4000 km installed, the SoluForce system is trusted for reliable energy infrastructure worldwide. Certified and based on proven technologies, it can be the perfect accelerator to achieve local hydrogen distribution in a fast, flexible and cost-efficient manner.  
[www.soluforce.com](http://www.soluforce.com)



**TES** is a global green energy company developing giga-scale projects to produce hydrogen-based e-fuels like e-NG (electric natural gas from green hydrogen and CO2). Based in Europe and operating worldwide, TES uses renewable energy - solar, wind, and hydro—combined with climate-neutral CO2 to create e-NG, a scalable, cost-effective drop-in fuel replacing fossil gas. TES aims to accelerate green molecule adoption by making them easy to transport and use, supporting genuine net-zero targets, and driving progress in the fight against climate change.  
[www.tes-h2.com](http://www.tes-h2.com)



**TNO** is an independent research organisation. More than 15 research departments spread over 6 units are collectively working on innovations along the entire hydrogen value chain from production to infrastructure, storage and final applications. TNO is involved in over 50 hydrogen related projects. From developing new materials in its Faraday lab to work on prefeasibility and engineering studies for large scale deployment in project such as NorthH2 and the Gigawatt project.  
[www.tno.nl/en](http://www.tno.nl/en)



At ports around the world, **Vopak** provides storage and infrastructure solutions for vital products that enrich everyday life. Together with partners and customers, Vopak is accelerating the development of infrastructure solutions for hydrogen, ammonia, CO2, long-duration energy storage, and low-carbon fuels & feedstocks – paving the way to a more sustainable future.  
[www.vopak.com](http://www.vopak.com)

# Curious to learn more? Get in touch!

This partnership is coordinated by New Energy Coalition. New Energy Coalition is a network and knowledge coalition that is committed to a smart and successful transition to the sustainable energy system of the future, in the Netherlands and the rest of the world.

New Energy Coalition is the catalyst behind the first hydrogen valley in Europe in the north of the Netherlands, a six-year European programme in which more than thirty public and private parties are contributing to the construction of a hydrogen network in the Northern Netherlands. From large-scale production of hydrogen to the expansion of the number of hydrogen vehicles and refuelling stations, and from underground hydrogen storage to hydrogen heating in residential areas.

[www.newenergycoalition.org](http://www.newenergycoalition.org)



You can contact the coordinators of this partnership via the following details:



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