



Market Report

A Snapshot of your Market Sector

Hydrogen

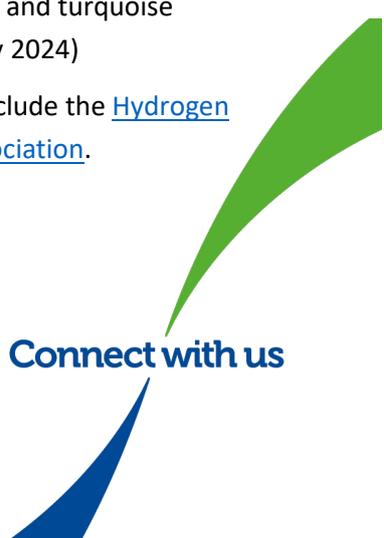
This pack has been designed to provide information on setting up a business in the **Hydrogen** industry, as well as helping to inform the market research section of your business plan. You can find more information on how to write a business plan from the Business Gateway website (www.bgateway.com/businessplan), including an interactive template and tips to get you started.

This market report was updated by Business Gateway in **January 2024**. If you find the information contained in this document useful, tell us about it! Send us feedback [here](#); we will use your comments to help improve our service.

What do I need to know about the Hydrogen market?

The following summary statistics have been taken from market research reports and reliable resources that the Information Service uses to compile industry information. They should give you an indication of how your industry is faring at present and whether there is demand for your type of business:

- ◆ The British Energy Security Strategy sets a target to deliver up to **10 GW of hydrogen production by 2035**, with at least half coming from green hydrogen. This is an increase of 5 GW on the government's previous target. (Mintel, *Renewable Energy – UK 2023*, January 2024)
- ◆ Technavio has estimated the total market for **global hydrogen generation market as \$153.27 billion in 2022 and is estimated to grow to \$201.11 billion in 2027**. This will create an incremental growth opportunity worth \$47.84 billion between 2022 and 2027, which translates to around 32% of the market size in 2022. (Technavio, *Global Hydrogen Generation Market 2023-2027*, December 2022)
- ◆ The **global hydrogen electrolyzers market was valued at \$285.2 million in 2022** and is estimated to grow to **\$404.54 million in 2027**. This will create an incremental growth opportunity worth \$119.34 million between 2022 and 2027, which translates to around 42% of the market size in 2022 (Technavio, *Global Hydrogen Electrolyzers Market 2023-2027*, November 2022)
- ◆ The **global green hydrogen market was valued at \$2,669.2 million in 2022** and is estimated to **grow to \$17,414.24 million in 2027**. This will create an incremental growth opportunity worth \$14,745.04 million between 2022 and 2027, which translates to around 553% of the market size in 2022. (Technavio, *Global Green Hydrogen Market 2023-2027*, March 2023)
- ◆ GlobalData figures show that **824 ktpa of green hydrogen was produced in 2022**, which is expected to reach 2,036 ktpa by the end of 2023. By 2030, green hydrogen production will dominate the market with an estimated production capacity of 160,001ktpa, which is the highest among the other low-carbon hydrogens. (GlobalData Power, *Hydrogen Market Industry Analysis*)
- ◆ To date, **the total active and pipeline capacity of low carbon hydrogen exceeds 200 mtpa**, of which 92% and 8% comes from green and blue plants, respectively, and just 0.08% from purple and turquoise combined. (GlobalData Power, *Hydrogen Transition and Outlook – Q1 2024*, January 2024)
- ◆ The national organisation for this industry is [Hydrogen UK](#). Other industry bodies include the [Hydrogen Energy Association](#), [Hydrogen Council](#), and the [Scottish Hydrogen and Fuel Cell Association](#).



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Where can I find more information on my market?

The Information Service has access to a number of databases which can offer more detail on this industry. Some of these reports are listed below - if you would like to be sent extracts from any of these reports, please contact us on **0300 013 4753** or email info@bgateway.com.

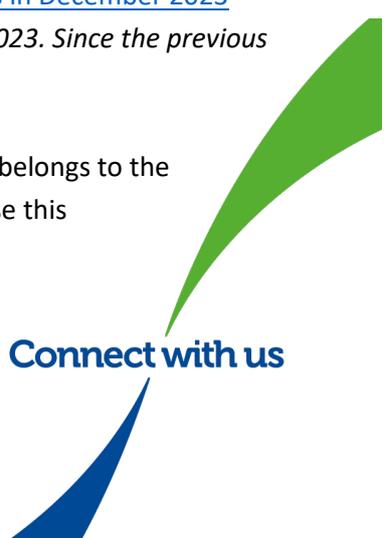
- ◆ **Mintel – Renewable Energy – UK 2023 (January 2024)**: In the net zero scenarios in 2050, whole energy system flexibility is provided primarily using electricity or gas to produce hydrogen, storing it, then using the hydrogen in the power sector or to meet end user demand directly.
- ◆ **Technavio – Global Hydrogen Generation Market 2023-2027 (December 2022)**: Europe was the 2nd-largest region in the market in 2022 and will continue to be the 2nd-largest segment in 2027. It will grow at a compounded annual growth rate of 5.33% between 2022 and 2027, which is slower than that of the overall market. It will be the 4th-fastest growing region in the overall market and will grow from \$32.69 billion in 2022 to \$42.39 billion in 2027.
- ◆ **Technavio – Global Hydrogen Storage Market 2023-2027 (December 2022)**: Hydrogen may be compressed, stored in tanks, and then used as needed, just like any other gas. Moreover, compared with other hydrocarbons, hydrogen has a far higher volume-nearly four times that of natural gas. As a result, hydrogen needs to be compressed for handling needs.

There are also a number of online resources you may find helpful:

- ◆ **Scottish Government – [Hydrogen Action Plan](#)** – published December 2022 – *sets out what the Scottish Government will do and how we will work with others to implement the strong strategic approach required to support the development of the hydrogen economy in Scotland.*
- ◆ **Scottish Industry Directories [Green Hydrogen Company Directory](#)** - *This directory has been developed on behalf of the Green Hydrogen community in Scotland as represented by their industry leadership groups with the support of Scottish Enterprise, Highlands and Islands Enterprise, and Scottish Development International.*
- ◆ **Scottish Development International (SDI) – [Hydrogen Industry](#)** – *The size of the electrolytic hydrogen market in Scotland was recently estimated to be 126 terawatt hours (TWh) of renewable hydrogen production. With this capacity, Scotland could be a key exporter of green energy to Europe.*
- ◆ **Hydrogen Energy Association – [The UK's Hydrogen Project Map](#)** – *This map is here to showcase to Investors, Governments & the Hydrogen Industry the pioneering projects across the value chain that our members and the wider Industry are implementing.*
- ◆ The **Hydrogen Council and McKinsey & Company** have published [Hydrogen Insights in December 2023](#) - *Globally, the industry has announced 1,418 clean hydrogen projects as of October 2023. Since the previous publication, 372 new projects have been announced.*

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How can I find out about my competitors?

Business Gateway's online guide to [Competitor Analysis](#) explains how to find your competitors, how to research what they're doing and how to act on what you learn about them.

Immediate competition will be from other businesses in your local area. There are several online directories which can be used to find company information and generate lists easily and at no expense. Many Local Authorities also publish local business directories on the web. Below are some key web resources:

- ◆ General business directories such as [Yell](#) ,[Thomson Local](#) or [Google Maps](#)
- ◆ Trade specialists like [EuroPages](#) (European directory), [The Wholesaler](#) or [Free Index](#)
- ◆ Business to business (B2B) specialists such as [Kompass](#)

Likewise, your local Chamber of Commerce may publish a members' directory; find your local Chamber on the [Scottish Chambers](#) website.

Once you've identified who your competitors are, the next step is to gather information on the way they do business. Which services do they provide? How do they market themselves? How much do they charge?

To learn about your competitors:

- ◆ Look for articles or adverts in local newspapers, trade press and directories.
- ◆ Try to read their marketing material; if the company has an online presence, visit the company's website as a first port of call. Not only does it give you a better understanding of the company's activities, it can also offer a wealth of information such as a company history or staff biographies, as well as the company's partners or suppliers
- ◆ Search for information on limited UK companies via the [Companies House](#) website
- ◆ Gain an insight into your competitor's performance using credit checks and the accounts that limited companies are required to submit to Companies House each year.

We can provide credit checks free of charge; if you are interested in using this resource, or looking for us to help you find relevant publications, please contact us by emailing info@bgateway.com or by calling **0300 013 4753**



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What about suppliers?

[Choosing and Managing Suppliers](#) can help you decide what you need from a supplier, how to identify one and how to choose one to deal with.

Trade associations or industry specific organisations may also be able to recommend suppliers or contacts. You can also use the aforementioned resources for finding competitors to find suppliers.

Once you have decided on a supplier, we can run a credit check on the company to help assess their financial stability. We provide credit checks free of charge; if you are interested in using the resource please info@bgateway.com or by calling **0300 013 4753**.

Who are my customers?

Your business plan should include information about the customers you would expect. Business Gateway's guides on [Market and customer research](#) will help you to identify new trends, opportunities, customers and competitors.

It can be useful to group your customers by geographical location, age or lifestyle. The websites listed below are freely available and can provide most of this information. If you can't find what you're looking for from these websites, please contact us and one of the team will be happy to help:

- ◆ Access the latest population estimates from the [National Records of Scotland \(NRS\)](#). NRS also offers demographic factsheets for each council area in Scotland, which can provide summary statistics for the area you will be based in.
- ◆ Information from the most recent census in 2011 is released via the official website. See in particular the [Census Area Profiles](#). Clicking on your area of interest will give the latest population figures, including estimates by age.
- ◆ [Understanding Scottish Places](#) has interactive profiles of towns and cities across Scotland. It can be useful for understanding the interrelationships and flows between towns, and also gives comparisons between two or more places.
- ◆ [Scottish Government Statistics](#) provide accurate and up-to-date statistics on Scotland, covering population, health, education and housing.
- ◆ [The Scottish Household Survey](#) provides information on the structure, characteristics, attitudes and behaviour of Scottish households, both at a national and local level.
- ◆ [Office for National Statistics \(ONS\)](#) is the recognised national statistical body for the UK. ONS covers a wide range of demographic, economic and social issues at a UK level.

How can you help me with other aspects of starting my business?

The Business Gateway website has guides, videos, online tutorials and tips on all aspects of starting up a business in Scotland. Follow the links below to explore each resource:

Accountancy

Institute of Chartered Accountants of Scotland's (ICAS) "[Find a Chartered Accountant](#)" tool

Funding

[Practical information](#) on finance and funding for starting and growing your business

Insurance

[Business insurance guide](#)

Legal Help

Gov.uk "[Licence Finder](#)" tool

Law Society of Scotland's "[Find a Solicitor](#)" tool

Pricing

Business Companion [Pricing & payment guide](#).

Please note: the most effective way to research pricing is to conduct your own research – visit wholesalers or suppliers to obtain price lists, find quotes from similar companies and work out what other businesses in your area are charging

Promotion

[BG guides to Marketing](#)

Training

[Skills Development Scotland's My World of Work](#)

[Funding for training](#)

[Small Business Bonus Scheme \(Scotland\)](#)

Your local Business Gateway can offer events, workshops and 1:2:1 support on all aspects of starting and developing your business. Call the helpline on **0300 013 4753** to find out what is available in your area.

We hope you find this Market Report useful and we'd love to hear your feedback [here](#).

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You must not rely on the information in the report as an alternative to advice from an appropriately qualified professional. If you have any specific questions speak to your Business Gateway Advisor or consult an appropriately qualified professional.

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Updated by: Fiona Elliot

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