

Interactive Database Tool

User Guide



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1. Introduction

1.1 Purpose of the Tool

The IPHE's H2Skills Task Force has developed an interactive database as a resource to support stakeholders in navigating the emerging hydrogen workforce landscape. The tool consolidates information from published hydrogen skills needs assessments and enables users to explore key job roles and their characteristics, including qualification requirements, skills gaps, hydrogen-specific competencies, and recruitment risks and opportunities.

1.2 Target Audience

It is intended to support authors of future skills needs assessments, as well as those involved in workforce planning, education and training development, and policy design.

2. Getting Started

2.1 Prerequisites

This tool is publicly available via a web link and can be accessed by anyone with internet access. However, to ensure optimal performance and usability, the following minimum hardware and software prerequisites are recommended:

Software Requirements:

Web Browser: Latest version of Google Chrome, Microsoft Edge, Firefox, or Safari

JavaScript & Cookies: Must be enabled in the browser settings

Operating System: Windows 10/11, macOS, or latest iOS/Android for mobile access

Note: While the tool is accessible on mobile devices, it is optimized for larger screens (desktop or Laptop) for full functionality and best user experience.

2.2 How to Access the Tool

The tool is publicly accessible online and does not require any login or user credentials. Follow the steps below to access it:

1. Open your preferred web browser (Google Chrome, Microsoft Edge, Firefox, or Safari).
2. Navigate to the official website hosting the tool:
iphe.net/jobroledatabase
3. The Power BI report will load directly in your browser window.

⚠ Note: Depending on your internet speed and device performance, the dashboard may take a few seconds to load fully.

2.3 Navigation Overview

The tool is designed with user-friendly navigation and intuitive layout to help you easily explore and analyse the data. It consists of two primary sections, each explained and shown below.

2.3.1 Explore Hydrogen Job Roles by Skills Characteristics

This section allows users to filter job roles by key characteristics such as qualification, value chain stage, and to conduct keyword searches to identify roles of interest. The results are displayed in the “Details” block below, grouped according to the source country. This enables users to explore job roles and associated skills. For example, users can search for roles requiring a particular qualification level, compare hydrogen-specific skills across job profiles, or identify workforce needs linked to specific value chain stages or activities.

Filter by keyword →

Click To Reset Page

Value Chain Stage

☐ H2 Production (Electrolyzer)
☐ H2 Production (Hydrocarbon-Based)
☐ H2 Production (H2 Co-Production)
☐ H2 Production (Carbon Capture & Storage)
☐ H2 Distribution, Carriers & Storage
☐ H2 Use for Heat Generation
☐ H2 in Industrial Use
☐ H2 in Power Generation
☐ H2 as Transport Fuel
☐ H2 Equipment Manufacturing

Role

☐ Accountant
☐ Activity manager
☐ Adjuster / Assembler
☐ Administration specialist
☐ Administration staff
☐ Administrative manager
☐ Air conditioning technician
☐ Applications engineer
☐ Architectural engineer specializing in elect...
☐ Architectural Metalworker

Key Activities

☐ Business Operations
☐ Compliance
☐ Development, Design, and Construction
☐ Governance
☐ Operation & Maintenance
☐ Support Functions

Qualification Level

☐ Elementary/High School Diploma
☐ Experience, Apprenticeship
☐ Non-Technical Diploma/Certificate
☐ Technical Diploma/Certificate
☐ Bachelor's Degree, Engineering
☐ Bachelor's Degree, STEM (Non-Engineering)
☐ Bachelor's Degree, Non-STEM
☐ Master's Degree
☐ Additional Certification

Focus Area

☐ Business Operation and Development
☐ Engineering
☐ Trades and Technicians
☐ Policy and Regulation
☐ Safety
☐ Other

Data Contained

☐ Activities
☐ General Skills
☐ Hydrogen-Related Requirements
☐ Occupation Classification System
☐ Qualifications
☐ Recruiting Risks/Opportunities
☐ Skills Gap

Detail

▲

Australia

Canada

France (DefHy)

France (White Paper)

India

Namibia

South Africa

2.3.2 Map Job Roles Across Hydrogen Skills Studies

This section gives users an overview of which job roles are covered in which hydrogen skills needs assessments. Users can search by keyword or filter by source document, allowing them to trace where particular roles are discussed and compare how they are characterised across different studies.

Filter by keyword →

Role	Australia	Canada	France (DefHy)	France (White Paper)	India	Namibia	South Africa
<input checked="" type="checkbox"/> Select all							
<input checked="" type="checkbox"/> Accountant							
<input checked="" type="checkbox"/> Activity Manager							
<input checked="" type="checkbox"/> Adjuster / Assembler							
<input checked="" type="checkbox"/> Administration Specialist							
<input checked="" type="checkbox"/> Administration Staff							
<input checked="" type="checkbox"/> Administrative Manager							
<input checked="" type="checkbox"/> Air Conditioning Technician							
<input checked="" type="checkbox"/> Applications Engineer							
<input checked="" type="checkbox"/> Architectural Engineer Specializing In El...							
<input checked="" type="checkbox"/> Architectural Metalworker							
<input checked="" type="checkbox"/> Artificial Intelligence Specialist							
<input checked="" type="checkbox"/> Assembling Labourer							
<input checked="" type="checkbox"/> Assembly Fitter / Cable Installer / Asse...							
<input checked="" type="checkbox"/> Assembly Technician							
<input checked="" type="checkbox"/> Assembly Technician (Production Work...							
<input checked="" type="checkbox"/> Asset Performance Manager							
<input checked="" type="checkbox"/> Atex Equipment Repairer							
<input checked="" type="checkbox"/> Automated Line Operative / Driver							
Automation & Controls Specialist		✓					
Automation / Robotics Technician				✓			
Automation And Control Specialist							✓
Automation Engineer			✓	✓			
Automation Line Operative				✓			
Automation Technician / Robotictist			✓				
Automotive Electric Vehicle Technician	✓						
Automotive Electrician	✓						
Boiler Maker			✓	✓		✓	
Bop Specialist							✓
Bus, Coach Dirver				✓			
Bus, Coach Driver			✓				
Business & Commercial Development Specialist		✓					
Business And Technology Manager Development ...							✓
Business Developer							✓
Business Developer / Business Manager				✓			
Business Developer / Manager			✓				
Business Development Head					✓		
Business Development Manager					✓		
Caretaker							✓
Cathodic Protection Technician							
Cavern Engineer		✓					✓

3. Dashboard Overview

3.1 Main Dashboard Layout

Quickly locate any keyword in the report. Type in word and click the arrow

Filter by keyword →

Value Chain Stage

☐ H2 Production (Electrolyzer)
☐ H2 Production (Hydrocarbon-Based)
☐ H2 Production (H2 Co-Production)
☐ H2 Production (Carbon Capture & Storage)
☐ H2 Distribution, Carriers & Storage
☐ H2 Use for Heat Generation
☐ H2 in Industrial Use
☐ H2 in Power Generation
☐ H2 as Transport Fuel
☐ H2 Equipment Manufacturing

Role

☐ Accountant
☐ Activity manager
☐ Adjuster / Assembler
☐ Administration specialist
☐ Administration staff
☐ Administrative manager
☐ Air conditioning technician
☐ Applications engineer
☐ Architectural engineer specializing in elect...
☐ Architectural Metalworker

Key Activities

☐ Business Operations
☐ Compliance
☐ Development, Design, and Construction
☐ Governance
☐ Operation & Maintenance
☐ Support Functions

Qualification Level

☐ Elementary/High School Diploma
☐ Experience, Apprenticeship
☐ Non-Technical Diploma/Certificate
☐ Technical Diploma/Certificate
☐ Bachelor's Degree, Engineering
☐ Bachelor's Degree, STEM (Non-Engineering)
☐ Bachelor's Degree, Non-STEM
☐ Master's Degree
☐ Additional Certification

Focus Area

☐ Business Operation and Development
☐ Engineering
☐ Trades and Technicians
☐ Policy and Regulation
☐ Safety
☐ Other

Data Contained

☐ Activities
☐ General Skills
☐ Hydrogen-Related Requirements
☐ Occupation Classification System
☐ Qualifications
☐ Recruiting Risks/Opportunities
☐ Skills Gap

Detail

▲ Australia
▣ Canada
▣ France (DefHy)
▣ France (White Paper)
▣ India
▣ Namibia
▣ South Africa

Click To Reset Page

Clear all selected values with one click

?

Hovering over this Icon will provide a brief description of the field.

☐

Selecting any item in this check box will filter it and show only the data that is related to that selection.

i

Click To Reset Page

Quickly clears all selected filters.

Filter by keyword →

Can be used as keyword and “wildcard” search for text that appears in the role title or description

Quickly locate any keyword in the report. Type in word and click the arrow

Filter by keyword →

Role
☐ Automation & Controls Specialist
☐ Automation / Robotics Technician
☐ Automation And Control Specialist
☐ Automation Engineer
☐ Automation Line Operative
☐ Automation Technician / Roboticist
☐ Automotive Electric Vehicle Technician
☐ Automotive Electrician
☐ Boiler Maker
☐ Bop Specialist
☐ Bus, Coach
☐ Bus, Coach

Selecting a role will display in which dataset(s) that particular role appears.

Display active filters

Role	Australia	Canada	France (DefHy)	France (White)	South Africa
Accountant					
Activity Manager			✓	✓	
Adjuster / Assembler			✓		
Administration Specialist					✓
Administration Staff					✓
Administrative Manager					✓
Air Conditioning Technician					✓
Applications Engineer		✓			
Architectural Engineer Specializing In Electrical Engi...			✓	✓	
Architectural Metalworker				✓	
Artificial Intelligence Specialist					✓
Assembling Labourer					✓
Assembly Fitter / Cable Installer / Assembly Technic...				✓	
Assembly Technician					✓
Assembly Technician (Production Worker)		✓			
Asset Performance Manager		✓			✓
Atex Equipment Repairer				✓	
Automated Line Operative / Driver			✓		
Automation & Controls Specialist		✓			
Automation / Robotics Technician				✓	
Automation And Control Specialist					✓

✓ Indicates a role applicable to that country.

3.2 Description of Filters

3.2.1 Filter by Keyword

This functionality allows users to filter the database using a keyword search. The keyword is matched against text appearing in the role title or description of all data entries. “Wildcard” searches are also possible using this functionality. Depending on the nature of the search, it may take a few seconds for the results to display. If other filters are active, the search will apply only to the filtered set of roles.

Filter by keyword →

3.2.2 Value Chain Stage

Filter for the hydrogen value chain stage associated with a role. If no value chain stages are selected, roles from all value chain stages will be displayed.

Value Chain Stage
<input type="checkbox"/> H2 Production (Electrolyzer)
<input type="checkbox"/> H2 Production (Hydrocarbon-Based)
<input type="checkbox"/> H2 Production (H2 Co-Production)
<input type="checkbox"/> H2 Production (Carbon Capture & Storage)
<input type="checkbox"/> H2 Distribution, Carriers & Storage
<input type="checkbox"/> H2 Use for Heat Generation
<input type="checkbox"/> H2 in Industrial Use
<input type="checkbox"/> H2 in Power Generation
<input type="checkbox"/> H2 as Transport Fuel
<input type="checkbox"/> H2 Equipment Manufacturing

3.2.3 Qualification Level

Filter for the typical education or certification level required for the role. If no qualification levels are selected, roles of all qualification levels will be displayed.

Qualification Level
<input type="checkbox"/> Elementary/High School Diploma
<input type="checkbox"/> Experience, Apprenticeship
<input type="checkbox"/> Non-Technical Diploma/Certificate
<input type="checkbox"/> Technical Diploma/Certificate
<input type="checkbox"/> Bachelor's Degree, Engineering
<input type="checkbox"/> Bachelor's Degree, STEM (Non-Engineering)
<input type="checkbox"/> Bachelor's Degree, Non-STEM
<input type="checkbox"/> Master's Degree
<input type="checkbox"/> Additional Certification

3.2.4 Role

Filter for specific job titles or occupations relevant to the hydrogen workforce. If no roles are selected, roles of all job titles will be displayed.

Role
<input type="checkbox"/> Accountant
<input type="checkbox"/> Activity manager
<input type="checkbox"/> Adjuster / Assembler
<input type="checkbox"/> Administration specialist
<input type="checkbox"/> Administration staff
<input type="checkbox"/> Administrative manager
<input type="checkbox"/> Air conditioning technician
<input type="checkbox"/> Applications engineer
<input type="checkbox"/> Architectural engineer specializing in elect...
<input type="checkbox"/> Architectural Metalworker

3.2.5 Focus Area

Filter for the primary discipline or field of work the role falls under. If no focus areas are selected, roles from all focus areas will be displayed.

Focus Area
<input type="checkbox"/> Business Operation and Development
<input type="checkbox"/> Engineering
<input type="checkbox"/> Trades and Technicians
<input type="checkbox"/> Policy and Regulation
<input type="checkbox"/> Safety
<input type="checkbox"/> Other

3.2.6 Key Activities

Filter for the core responsibilities or project phases associated with the role. If no key activities are selected, roles of all activity types will be displayed.

Key Activities ?

☐ Business Operations

☐ Compliance

☐ Development, Design, and Construction

☐ Governance

☐ Operation & Maintenance

☐ Support Functions

3.2.7 Data Contained

Filter for the types of information reported for each role, such as skills, qualifications, or regulatory details. If no data types are selected, roles of all data types will be displayed.

Data Contained ?

☐ Activities

☐ General Skills

☐ Hydrogen-Related Requirements

☐ Occupation Classification System

☐ Qualifications

☐ Recruiting Risks/Opportunities

☐ Skills Gap

3.2.8 Detail

The results from your selections are grouped by Country and Role. Click the '+' sign to drill down for details.

Detail ?

▲

+

 Australia

+

 Canada

+

 France (Def'Hy)

+

 France (White Paper)

+

 India

+

 Namibia

+

 South Africa

4. Using the Tool

4.1 Step by Step Instructions

From the available filters, select the desired information you wish to search for.

- Only data matching the selected criteria will populate in the detail field.
- Should you wish to include all data in a particular field, do not make any selection e.g. selecting no value chain, roles from all value chain stages will be displayed.

Value Chain Stage	Qualification Level
<input type="checkbox"/> H2 Production (Electrolyzer) <input type="checkbox"/> H2 Production (Hydrocarbon-Based) <input type="checkbox"/> H2 Production (H2 Co-Production) <input type="checkbox"/> H2 Production (Carbon Capture & Storage) <input type="checkbox"/> H2 Distribution, Carriers & Storage <input type="checkbox"/> H2 Use for Heat Generation <input type="checkbox"/> H2 in Industrial Use <input type="checkbox"/> H2 in Power Generation <input type="checkbox"/> H2 as Transport Fuel <input type="checkbox"/> H2 Equipment Manufacturing	<input type="checkbox"/> Elementary/High School Diploma <input type="checkbox"/> Experience, Apprenticeship <input type="checkbox"/> Non-Technical Diploma/Certificate <input type="checkbox"/> Technical Diploma/Certificate <input type="checkbox"/> Bachelor's Degree, Engineering <input type="checkbox"/> Bachelor's Degree, STEM (Non-Engineering) <input type="checkbox"/> Bachelor's Degree, Non-STEM <input type="checkbox"/> Master's Degree <input type="checkbox"/> Additional Certification
Role	Focus Area
<input type="checkbox"/> Accountant <input type="checkbox"/> Activity manager <input type="checkbox"/> Adjuster / Assembler <input type="checkbox"/> Administration specialist <input type="checkbox"/> Administration staff <input type="checkbox"/> Administrative manager <input type="checkbox"/> Air conditioning technician <input type="checkbox"/> Applications engineer <input type="checkbox"/> Architectural engineer specializing in elect... <input type="checkbox"/> Architectural Metalworker	<input type="checkbox"/> Business Operation and Development <input type="checkbox"/> Engineering <input type="checkbox"/> Trades and Technicians <input type="checkbox"/> Policy and Regulation <input type="checkbox"/> Safety <input type="checkbox"/> Other
Key Activities	Data Contained
<input type="checkbox"/> Business Operations <input type="checkbox"/> Compliance <input type="checkbox"/> Development, Design, and Construction <input type="checkbox"/> Governance <input type="checkbox"/> Operation & Maintenance <input type="checkbox"/> Support Functions	<input type="checkbox"/> Activities <input type="checkbox"/> General Skills <input type="checkbox"/> Hydrogen-Related Requirements <input type="checkbox"/> Occupation Classification System <input type="checkbox"/> Qualifications <input type="checkbox"/> Recruiting Risks/Opportunities <input type="checkbox"/> Skills Gap

As you start selecting the desired items, the tool will begin filtering where those selections are applicable.

- Fields where your selection is not applicable, will be removed from the report.
- Results are displayed in the adjacent “Details” Block

Value Chain Stage	Qualification Level
<input type="checkbox"/> H2 Production (Electrolyzer) <input type="checkbox"/> H2 Production (Hydrocarbon-Based) <input type="checkbox"/> H2 Distribution, Carriers & Storage <input type="checkbox"/> H2 Use for Heat Generation <input type="checkbox"/> H2 in Industrial Use <input checked="" type="checkbox"/> H2 in Power Generation <input type="checkbox"/> H2 as Transport Fuel	<input type="checkbox"/> Experience, Apprenticeship <input type="checkbox"/> Bachelor's Degree, Engineering <input type="checkbox"/> Master's Degree
Role	Focus Area
<input type="checkbox"/> Architectural engineer specializing in elect... <input type="checkbox"/> Artificial intelligence specialist <input type="checkbox"/> Assembly fitter / cable installer / assembly ... <input type="checkbox"/> Automation & controls specialist <input type="checkbox"/> Automation and control specialist <input type="checkbox"/> Automation engineer <input type="checkbox"/> Automation line operative <input type="checkbox"/> BOP specialist <input type="checkbox"/> Cathodic protection technician <input checked="" type="checkbox"/> Chemical engineer	<input type="checkbox"/> Engineering
Key Activities	Data Contained
<input type="checkbox"/> Development, Design, and Construction <input checked="" type="checkbox"/> Operation & Maintenance	<input type="checkbox"/> Activities <input type="checkbox"/> Hydrogen-Related Requirements <input type="checkbox"/> Occupation Classification System <input type="checkbox"/> Qualifications <input type="checkbox"/> Skills Gap

5. Troubleshoot & FAQs


1. The report is not loading / shows a blank screen. What should I do?

- Ensure you have a stable connection.
- Try refreshing the page (Press F5 or Ctrl R).
- Update your browser to the latest version.
- Clear your browser cache and cookies if the issue persists.

2. Filters are not responding when I click them.

- Click on a blank space on the report.
- Use the “Click to reset page” button.

3. The report is cut off or does not fit properly on my screen.

- Both tools have a zoom slider in the bottom right hand corner that can be adjusted to fit your screen.
- Try zooming out using your browser zoom settings (Ctrl +/- or Cmd +/- on Mac).
- View the report in Full screen mode by click the expand icon. 
- Try changing your display resolution to 1920 x 1080.
- The full dataset is also available in Excel format and is available on request, click the “Obtain the database in Excel Format” link on the database webpage to send an email request to the IPHE secretariat.

4. Why is the report loading slowly?

- The report is dependent on your internet speed, device RAM.
- Try closing some tabs or applications if you have multiple open.

5. I can't find the “Filter by keyword” search bar

- It's located on the top left section of the report.
- Try zooming out as it might be cut off or scroll up.
- Press F5 to refresh the report.

6. Do I need a Power Bi account to use the tool?

- No. The tool is publicly embedded and does not require login or a Microsoft Power Bi Licence.

6. Feedback & Support

We value your input and are committed to continuously improving the Power Bi tool to better meet your needs. If you experience any issues, have questions, or would like to suggest enhancements, please use the following channels.

✉ **Email:** media@iphe.net
Subject: [Hydrogen Jobs Database Query]