YEOVIL COLLEGE

PLG Innovation Update – YC H2 Lab

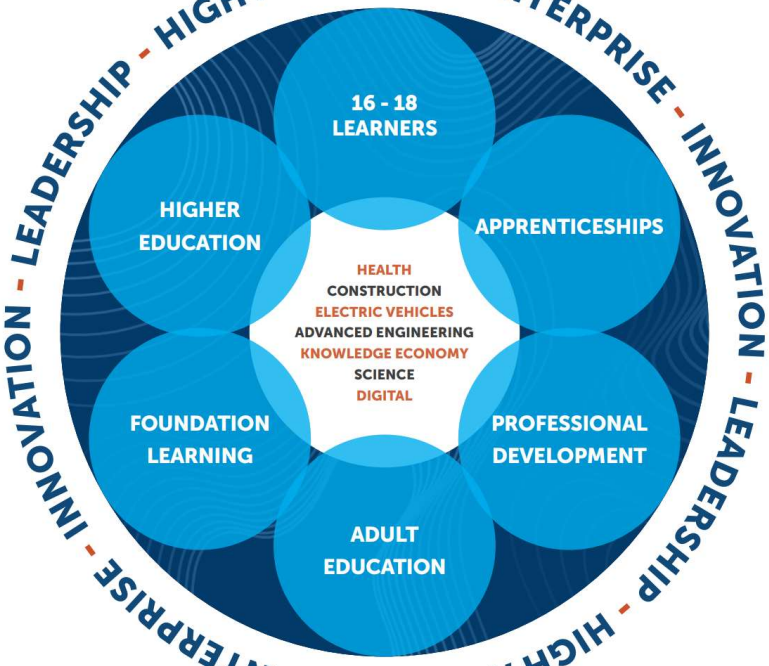
OUR MISSON, VISION & FOCUS

MISSION

TO CREATE LIFE-CHANGING OPPORTUNITIES.

VISION

SHAPING AN EXCITING FUTURE WITH THE BEST EDUCATION AND COLLABORATION.



Yeovil College

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EXTRAORDINARY PARTNERSHIPS

We work with some of the largest and most prestigious companies across the South West to ensure that our learners are provided with masterclasses, workshops, support, apprenticeships and work experience opportunities. Our extraordinary partnerships mean that you get a head start by networking in your dream industry and making connections before any of your peers at other local institutions.

Some of our partners include:

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LOW CARBON LANDSCAPE – HYDROGEN

- Hydrogen South West – more projects than any other region currently
- IAAPS Centre / NCC – Hydrogen Skills Alliance lead Nationally
- GW-SHIFT cluster as part of Bath University, £2.5 million funding announced for Bath-led GW-SHIFT hydrogen supercluster project.


Hydrogen Skills Alliance

EMPOWERING THE FUTURE:
A Strategic Skills Plan for the UK Hydrogen Economy

Executive Summary

Hydrogen is the simplest and most abundant chemical element in the universe. When harnessed it offers a clean, safe and versatile replacement for high-carbon fuels, helping bring down emissions and providing net zero energy for power, heat, industry and transport. This adaptable energy source is crucial to the government's goal of establishing the UK as a clean energy superpower.

Realising this ambition will help address the UK's economic and social challenges by opening new international markets, creating thousands of jobs, stimulating economic growth, and revitalising local areas.

Estimated workforce demand across the hydrogen value chain by 2030

	Production	Transmission (e.g. project union)	Transportation & distribution	Storage	Transport (usage)	Industrial processes	Heat	Power	Total
Direct	8,500	6,000	1,500	3,000	3,500	2,500	175	3,500	28,675
Indirect	24,000	13,500	3,000	6,000	7,500	3,500	300	6,000	63,800

(HUK - Hydrogen UK, Hii - Hydrogen Innovation Initiative, Cogent Skills/HSA - Hydrogen Skills Alliance)

Two key challenges

Attracting a workforce in sufficient numbers

It is estimated that hydrogen production needs to grow by 10,000 times to generate the 10GW output by 2030 outlined in The UK's Hydrogen Strategy[1] and British Energy Security Strategy[2]. This burgeoning hydrogen economy will require a significant workforce: forecasts estimate 28,675 direct and 63,800 indirect jobs, using a mix of existing and new skills. This is a substantial increase from the current workforce of just 1,600 in the 'alternative fuels' marketplace (including hydrogen and other fuels)[3]. However, there is already stiff competition from adjacent industries for many of the same skill sets hydrogen will require.

Achieving competency at pace

This workforce will need to apply a wide range of specific competencies quickly to achieve new capabilities across hydrogen production, storage, distribution and use. The skill needs will vary across different technologies, industries and regions - and the workforce will have different starting points and backgrounds. Technological advancement will require swift identification of relevant competencies to inform new training courses or risk the hydrogen economy's ability to scale up.

The case for strategic coordinated action

The hydrogen economy is unlike almost any other, presenting a unique set of challenges to skills development. It is evident there is significant market failure, meaning that if the development of hydrogen skills is left to market forces, critical training will not be available when and where it is most needed. Seven key drivers for strategic coordinated action have been identified.

Lack of workforce and labour market intelligence - There is a need to identify the fragmented hydrogen economy and build a dynamic picture of workforce and skills demand across the evolving hydrogen value chain - regionally and nationally, now and in the future.

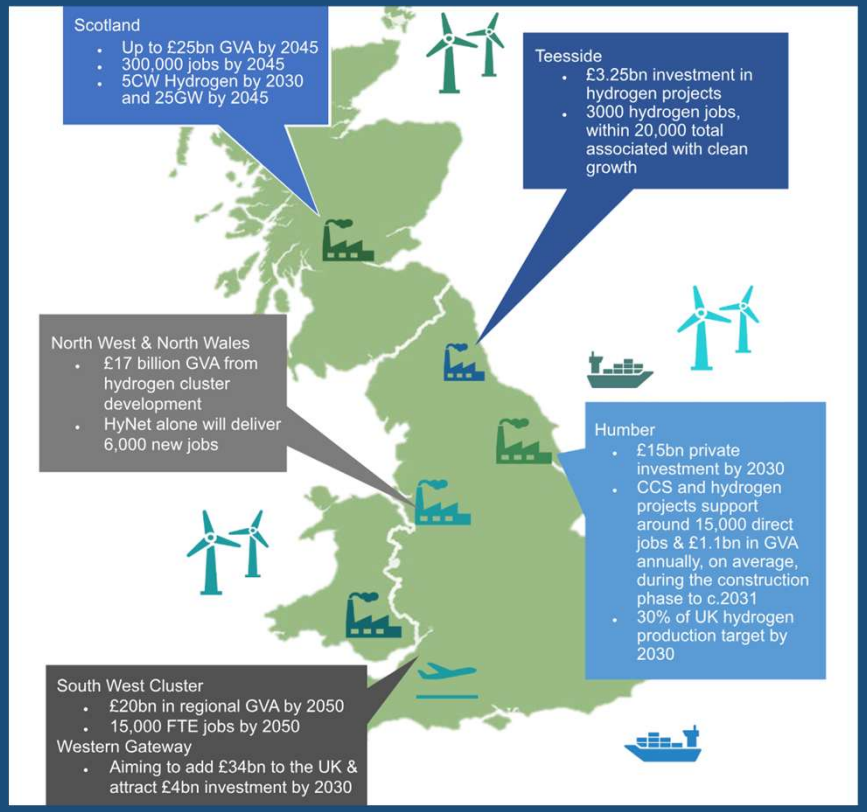
Workforce and skills shortages - While employers are investing in hydrogen technologies, they are already reporting a shortage of trained staff which will hinder the expansion of the hydrogen economy for 10GW of production.

Nascency means skills demand signals are lost - The current nascency of the hydrogen economy means a lack of engagement with regional skills planning programmes and employers have limited time available to work with providers to design programmes. SMEs are particularly disadvantaged.

Founded by **Cogent Skills** and the **National Composites Centre** in 2023, the Hydrogen Skills Alliance (HSA) brings together more than 50 organisations from the four nations of the UK – including industry, academia, government and skills bodies – to address skills gaps and promote innovation.

CHALLENGE

Securing a competitive advance - skills for the South West



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HYDROGEN – THE YC H2 LAB

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HYDROGEN – THE YC H2 LAB

The YC H2 LAB

Final commissioning is taking place on the new Yeovil College Hydrogen Lab (YC H2 LAB) after the main 'pod' was delivered in the last month. The YC H2 LAB will deliver a range of hydrogen training for industry across a number of sectors via a combination of online, classroom and practical training. This is a first of its kind in the England, however this has been built on a successful model implemented in Mid and East Antrim Borough Council (Northern Ireland), who have prioritised supporting the development of the hydrogen economy as part of its Economic Growth Strategy (Hydrogen-Training-Academy-FINAL-Digital.pdf (investmideastantrim.com)). The YC H2 LAB is designed to help upskill and train existing staff and new trainees to emerging professional competence standards required for the developing green energy sector. The initial areas of delivery will focus on:

- Hydrogen safety;
- Hydrogen generation, storage and distribution;
- Principles of a hydrogen facility (H2 gas safe)
- Hydrogen fuel cells for transport and aerospace
- The YC H2 LAB allows cross curricular application between Advanced Engineering, Construction and Automotive Engineering.

THE YC H2 LAB

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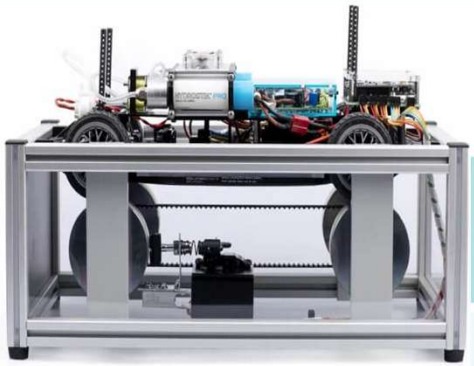
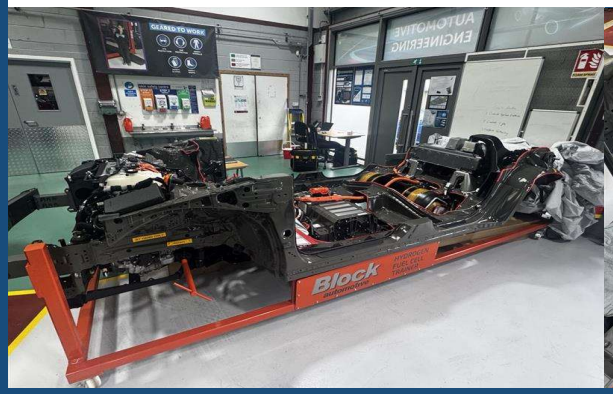
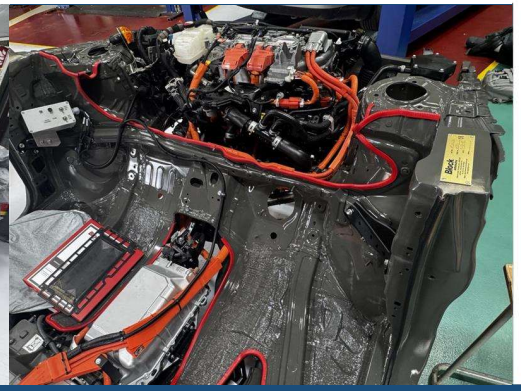
PRACTICAL APPLICATION







SIAS

SIAS Qualification Guide

SIAS Level 2 Award in the Introduction to Hydrogen Production

Qualification Number:

Operational Start Date: 1st September 2025

SIAS Level 2 Award in the Introduction to Hydrogen Storage

Qualification Number:

Operational Start Date: 1st September 2025

SIAS Level 2 Award in the Introduction to Hydrogen Transportation and Distribution

Qualification Number:

Operational Start Date: 1st September 2025

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