

Understanding the skills needed for a net zero world

We will start at 13.02 to allow
participants to finish previous
meetings and join the call

nationalgrid



While you are waiting, please access
Sli.do which we will be using for Q&A

Event Code:
#GTx8

Sli.do Instructions:
You can access Sli.do at www.sli.do or by
downloading
the Sli.do app.
Once you've logged on, enter the code above
when prompted.

Welcome and Opening

Thank you for joining us today

Please feedback via SLIDO

**Slido.com
#GTX8**



Who will be speaking today?

Lloyd Mitchell

Hydrogen
Engineering Lead,
FutureGrid



Steve Barrett

EU Skills



**Jennifer
Pemberton**
Stakeholder
Experience Manager



Logistics



Should last for approximately about 60 min



Questions and polling via [slido.com](https://www.slido.com) #GTX8



All callers will be placed on mute



We will circulate the slides and a recording of this webinar

Agenda

Skills Landscape

Hydrogen R&D Programme

Hy4Heat skills work

Upcoming gas network skills project

Questions

Poll question



What can we do to attract the next generation to the industry?

Skills landscape

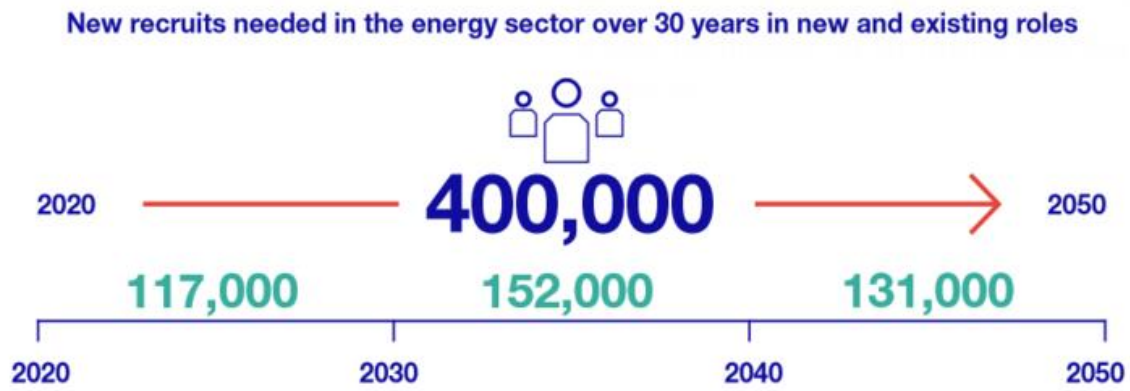
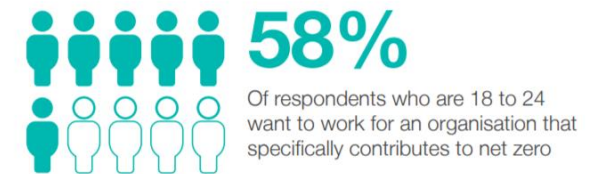
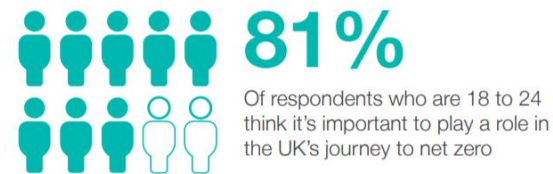
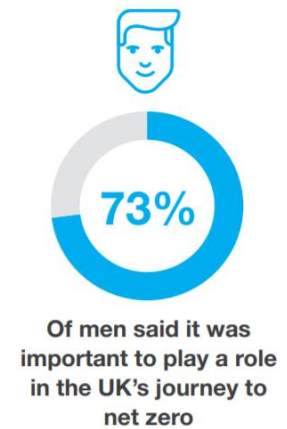
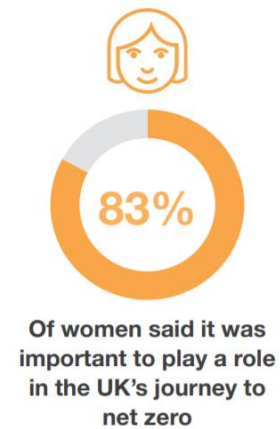


Figure 5: Demographic breakdown of YouGov consumer attitudes findings



Poll question - Results



What can we do to attract the next generation to the industry?

Poll question



To what extent will hydrogen impact your businesses training requirements?

Complete review of training requirements

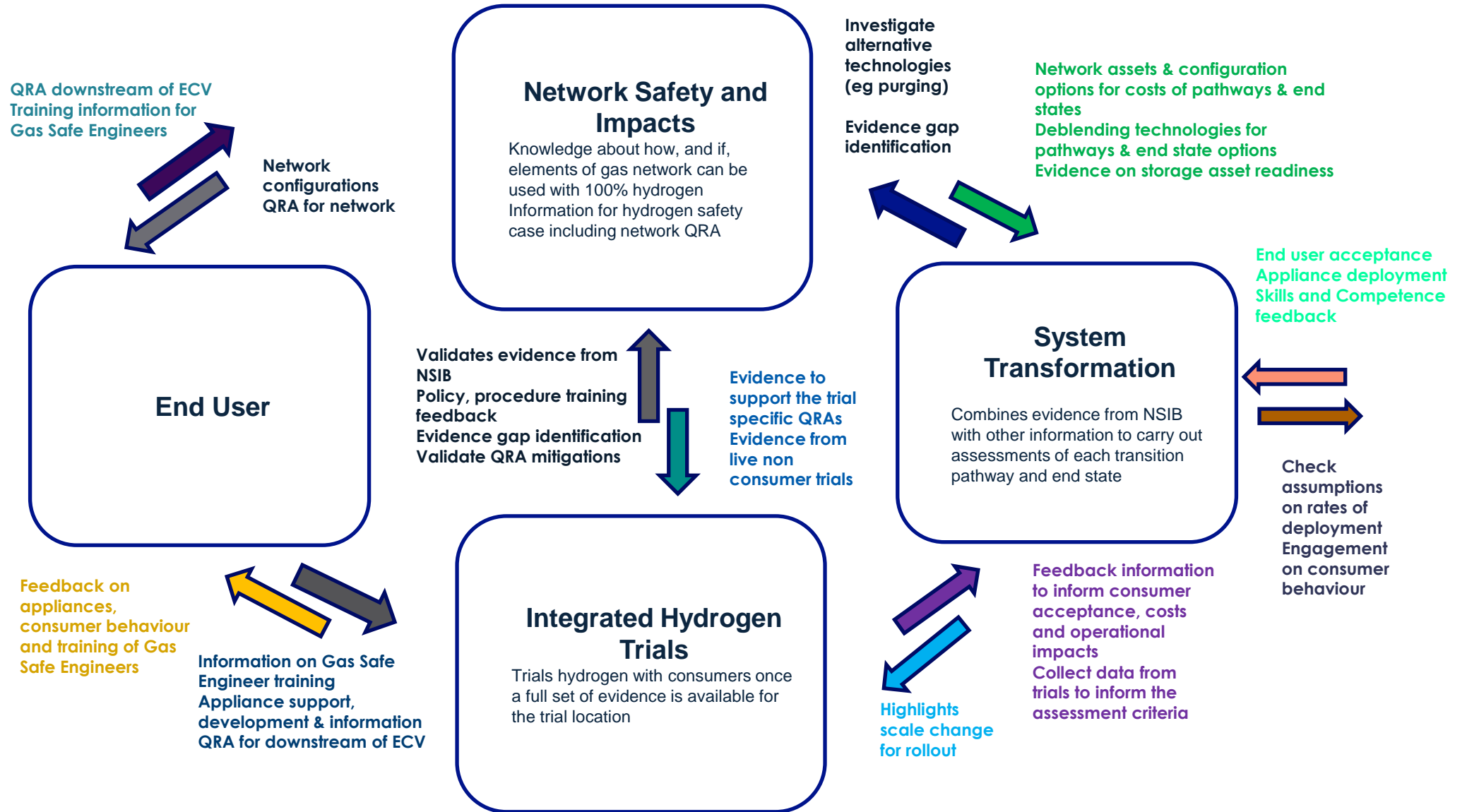
Targeted changes for certain courses

Few changes on a small number of materials

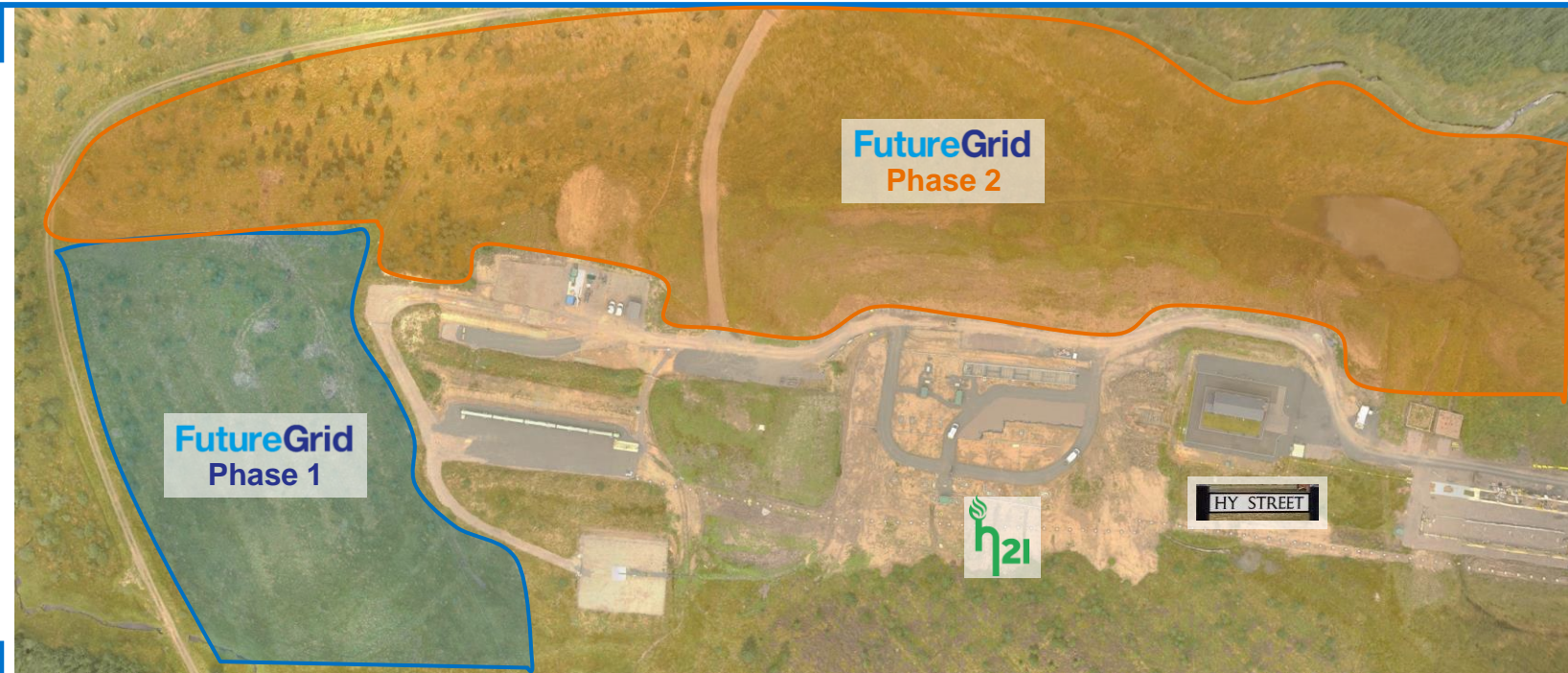
No change

Please explain

Hydrogen Grid R&D Programme



FutureGrid



Represent the NTS

Follow Relevant Standards

Platform for Further Innovation

Future Expansion & Development

DNV are our main delivery partner, responsible for building the test facility and developing the comprehensive master test plan across the range of decommissioned assets.

HSE Science Division are supporting the development of the test facility and subsequent master test plan, providing technical assurance and validation across the project.

Northern Gas Networks are collaborating on the project to drive closer links with the H21 project which is building a distribution test facility at DNV GL's Spadeadam Facility.

Fluxys are the equivalent Gas Transmission Operator in Belgium and are contributing a substantial level of hydrogen research, to ensure a internationally collaborative approach.

Durham University will be sponsoring a secondment student to study the NTS asset gaps, focusing on the development skills and training courses along with Phase 2 & 3 of FutureGrid.

Supporting the trials and developing technical papers and research from the project to enable dissemination, linking the H100 activities and FutureGrid/H21 activity to prevent duplication.

Poll question - Results



To what extent will hydrogen impact your businesses training requirements?

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of training
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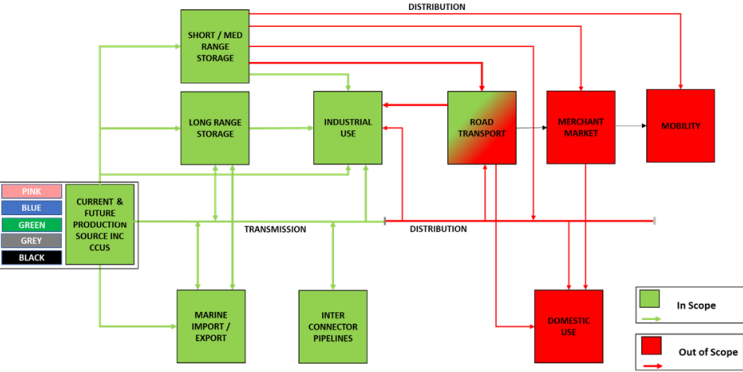
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Please explain

Project Landscape

Hy2001 Phase 1 – ‘Landscape review’

Development of competence, skills and training for the transition to hydrogen



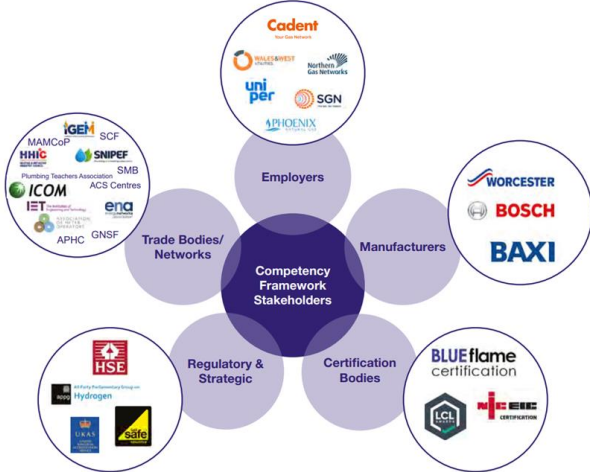
HGR&D NSIB

Skills & Competencies



Hy4Heat

Hydrogen Competency Framework Report

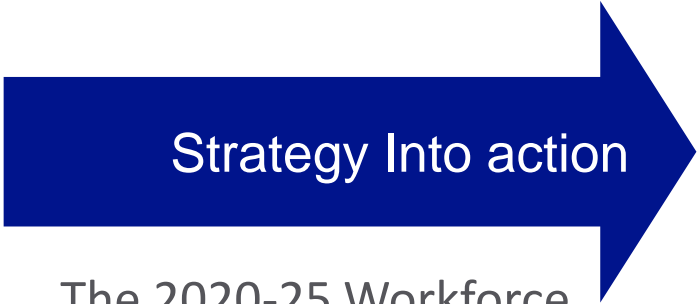




Are there any other key industries for which hydrogen competencies haven't been addressed? If so, what are they?

Energy & Utility Skills

Vision: Energy & Utility Skills help to ensure that a safe, skilled and sustainable workforce provides the essential services that our customers seek and meets the UK's needs from the energy and utilities infrastructure

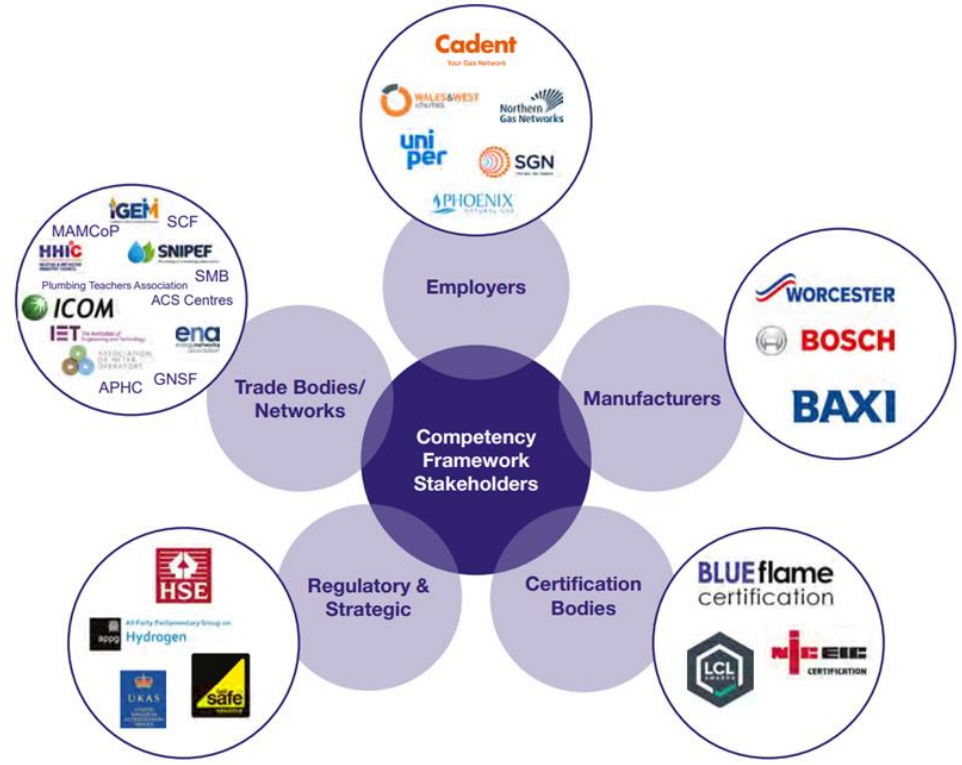
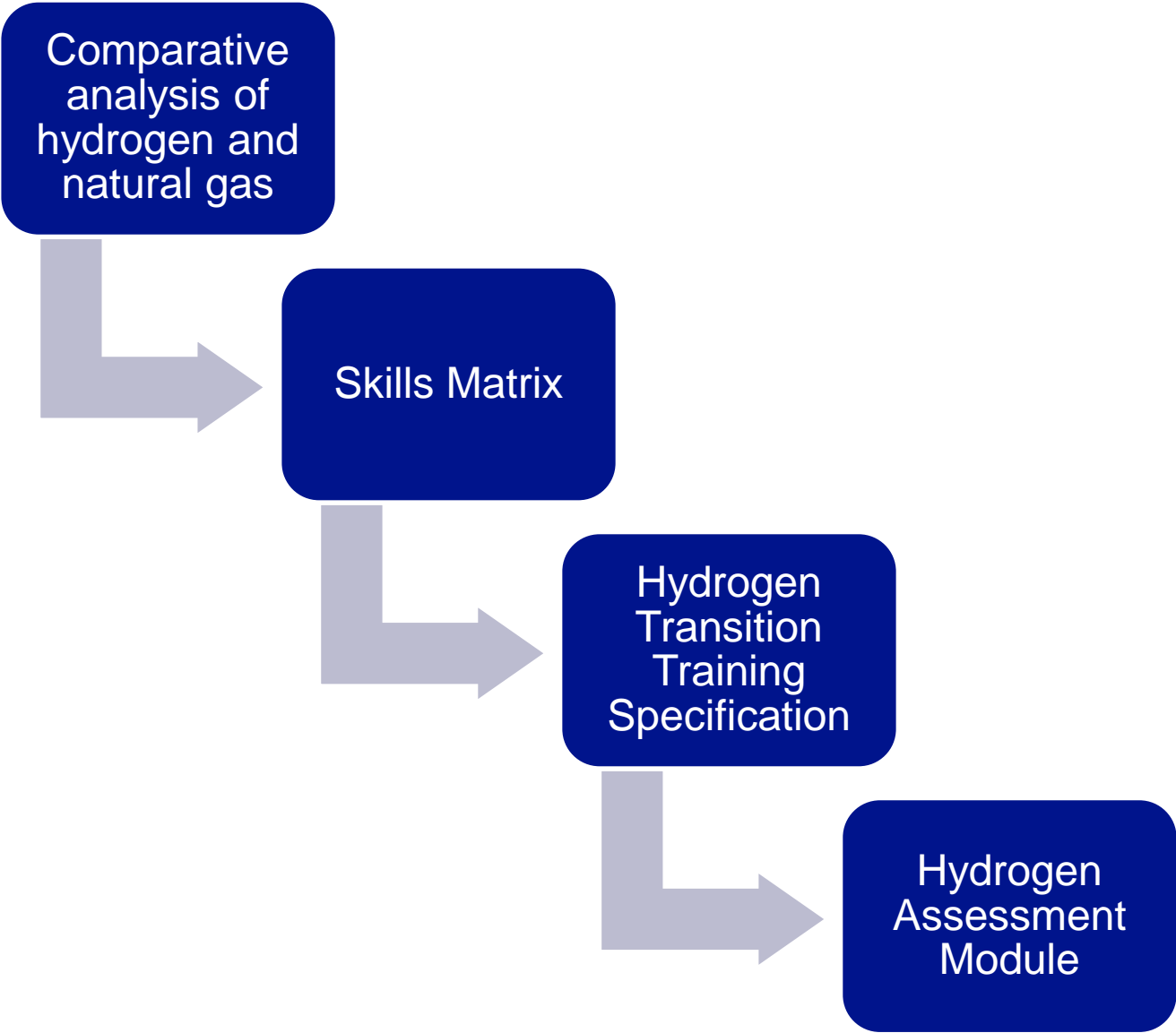


The 2020-25 Workforce Renewal & Skills Strategy identified 6 key priorities to achieve the Vision:

- 1.  Build public recognition of the sector – visible
- 2.  Deliver the competencies and skills we need – skilled
- 3.  Support a successful UK economy and society outside the EU – thriving
- 4.  Contribute to a sustainable and resilient UK – resilient
- 5.  Reflect the population that the sector workforce serves – inclusive
- 6.  Inspire the next generation to a career within the energy and utilities sector – inspiring



Framework development activities



Conclusions

- **Change** is critical if we are to achieve net-zero
- **Hydrogen is key** to the future energy mix
- Maintaining safety through **highly skilled gas engineers** will be critical
- **Scalability** to support future growth





Are there any other key industries for which hydrogen competencies haven't been addressed? If so, what are they?

Poll question



Should we use existing methods to monitor and manage competencies?

- Yes, existing methods are sufficient
- Yes, but with modifications
- No, new methods are required



Are you aware of any new innovative training techniques or approaches for improving training outcomes?



What are the main areas in which your personnel need to improve their hydrogen competency?

This could include: Hazards, general safety, asset operation, public engagement, inspection, maintenance, construction, procurement, modelling etc

Overview of upcoming Skills & Competencies project

Project partners



Delivery partner



Project timeline

January 2022 – February 2023

Overview of upcoming Skills & Competencies project

Project phases

Phase 1 – Functional requirements

Classify roles in terms of skills requirements to create a skills & competencies portfolio

Phase 2 – Concept development

Determine where gaps lie and what skills will require development

Phase 3 – Skills & competencies roadmap

Development of a roadmap to ensure networks are ready for hydrogen

Phase 4 – Reporting

NIA governance procedure and making the findings publicly available

Project scope



Overview of upcoming Skills & Competencies project

Project scope

- Recommendations for a Gas Transmission and Gas Distribution Networks covering:
 - skills and competencies
 - current activities
 - transition and future hydrogen requirements
- High level training course objectives and content
- All operational activities between network entry points (terminals) and the ECV (Emergency Control Valve) of a property

Key questions

- **Who** needs training?
- **What** training is required?
- Do existing courses need to be **adapted** or are new courses required?
- Are our existing tools and techniques **relevant**?
- What are the **certification** requirements?
- Where are the links to updates and changes in **policies** and **procedures**?

Poll question - Results



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Q&A



Thank you for joining us today

Keynote speech	Complete	Watch again
Future of Gas	Complete	Watch again
Innovation – broadening the horizon	Complete	Watch again
Gas Market Plan	Complete	Watch again
Transitioning to a hydrogen backbone	Complete	Watch again
Managing methane emissions	Complete	Watch again
Supporting regional hydrogen transitions	Complete	Watch again
Understanding the skills needed for a net zero world	Mon 06 th Dec 13.00 – 14.00	
Digital Strategy and Information Provision	Tue 07 th Dec 13.30 – 14.30	Register here
Operating the network	Wed 08 th Dec 09.00 – 10.00	Register here
FutureGrid 2021 Progress report	Tue 14 th Dec 10.00 – 11.00	Register here
Annual Network Capability Assessment Report	Wed 15 nd Dec 10.00 – 11.00	Register here

What next?



You will receive the recording and material from today's session

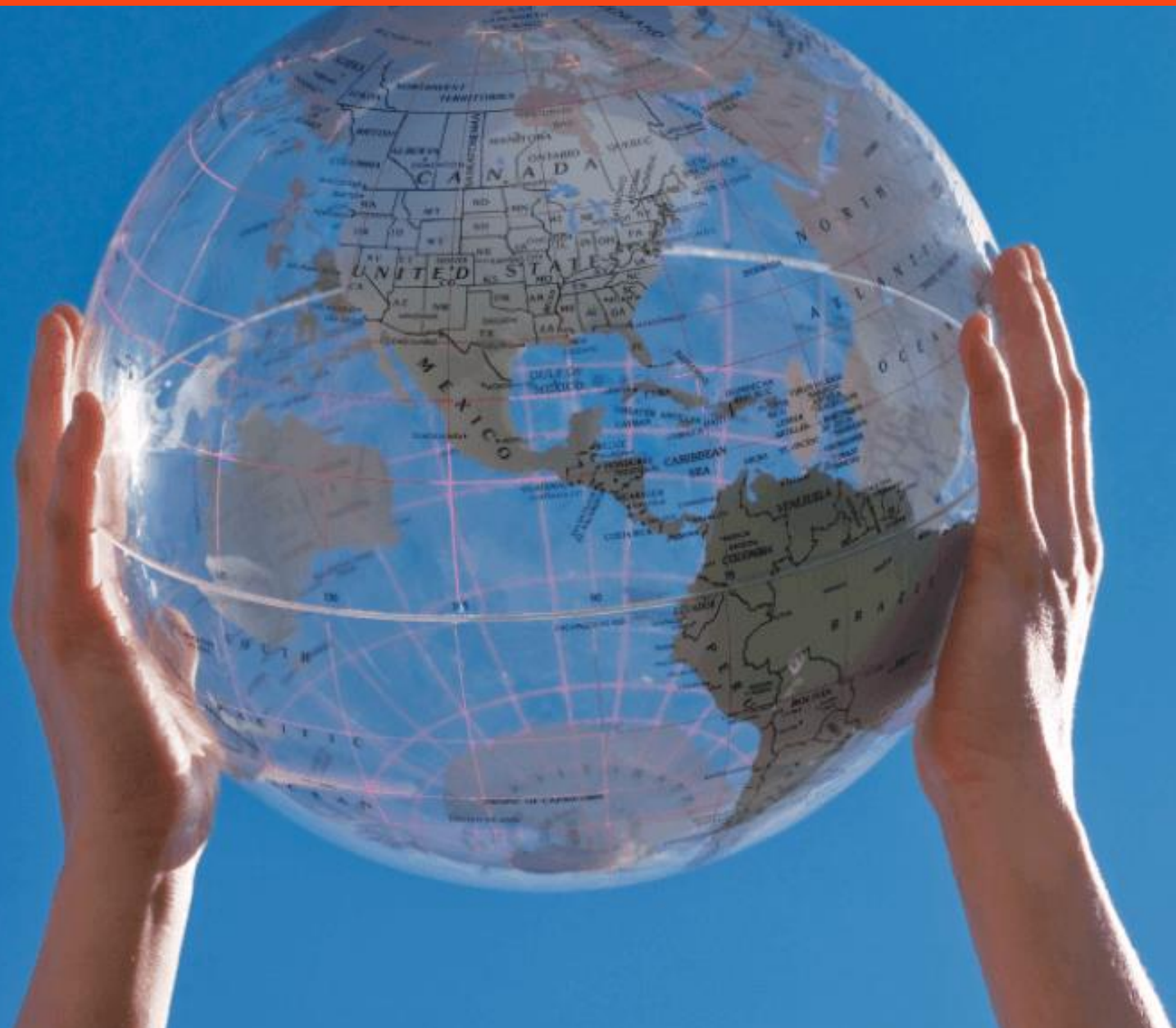


If you have any further questions or would like to discuss anything specific please get in touch with Lloyd.Mitchell@nationalgrid.com



Feedback is important to us, therefore if you have not already taken part, we would like to put you forward for a survey

Thank you for joining us



nationalgrid