Future Forum

Nuclear energy: Young people's views on nuclear energy and careers in the nuclear sector

December 2023

BRITISH SCIENCE ASSOCIATION

urenco
The Energy to Succeed

Content

01. Introduction

Future Forum is the British Science Association's (BSA) programme which gives young people a chance to have their voices heard on issues involving science.

The next generation will be tasked with solving the greatest challenges of our time, yet our research has found that they do not feel able to have their say on the issues affecting their future and they don't feel spoken to by politicians, scientists and other influential figures. The BSA believes that young people should be consulted on their views about research and its impact on society and their generation's future.

We created the Future Forum programme as a way of responding to this challenge: to engage young people on topics from Artificial Intelligence to the pandemic and the climate emergency to enable them to share their ideas and concerns; and to provide a route for presenting their views to stakeholders.

The BSA is delighted to have partnered with Urenco to explore young people's views on nuclear energy and careers within the nuclear industry. The project ran between April and July 2023.

"I know a lot about the science behind it [nuclear energy], and like how it's like generated, but I don't really understand how it can be used"
- workshop participant, aged 15

02. Key findings

Young people are open to nuclear as a future energy source and are keen to find out more. They would like clear, transparent information about the safety, origins, sustainability and waste management associated with nuclear energy.

Young people do not feel like they see or hear much about nuclear in their daily lives and education compared with other forms of energy. They feel less informed about nuclear, and in many cases, feel that this limits their ability to participate in discussions or consider future career options.

> “I’d be interested to know about how sustainable nuclear energy is because I’m very interested in helping the planet and finding solutions that are sustainable.”
>
> - workshop participant, aged 18

Living near a nuclear site or knowing someone who works in nuclear makes a difference to young people’s views. Young people with a connection to nuclear are more likely to feel connected to science, feel knowledgeable about nuclear, be trusting of different groups to give them information about nuclear, and be interested in careers in the nuclear industry.

Young people feel that historic perceptions and concerns about safety, environmental impact and diversity are being reinforced by teaching approaches and representation of nuclear in news, films and TV shows.

Young people are not aware of the career opportunities in nuclear, or what the routes into those careers are.

03. A national picture of young people's views on nuclear energy

Working on behalf of Urenco, the British Science Association (BSA) undertook a national survey of 1,000 14 to 18-year-olds in May 2023 via market research partners OnePoll. Full survey results can be found in Annex 1.

The survey included 16 questions, which covered views on nuclear energy, careers in the nuclear sector and the role of nuclear energy in reaching the UK's net zero target.

We compared the results with previous BSA Future Forum surveys which ask similar questions. We found that in this survey:

- Young people reported a higher level of interest and connection to science than in our previous surveys.
- The issues that young people care about are consistent with our previous surveys (climate, energy and mental wellbeing).
- Levels of trust in scientists and mistrust of politicians are similar to those shown in our previous surveys.
- Climate change, sustainable energy, the cost of living and mental health and wellbeing are the issues that young people say are most important to them in terms of improving their lives in the future.

03. Access to information about nuclear

Around 1 in 10 (11%) young people were confident enough to say that they feel 'very informed' about energy sources. Young people told us that they **felt they knew more about renewables, gas and coal than they do about nuclear:** 51% of young people feel 'somewhat informed' about renewables, whereas 37% feel 'somewhat informed' about nuclear.

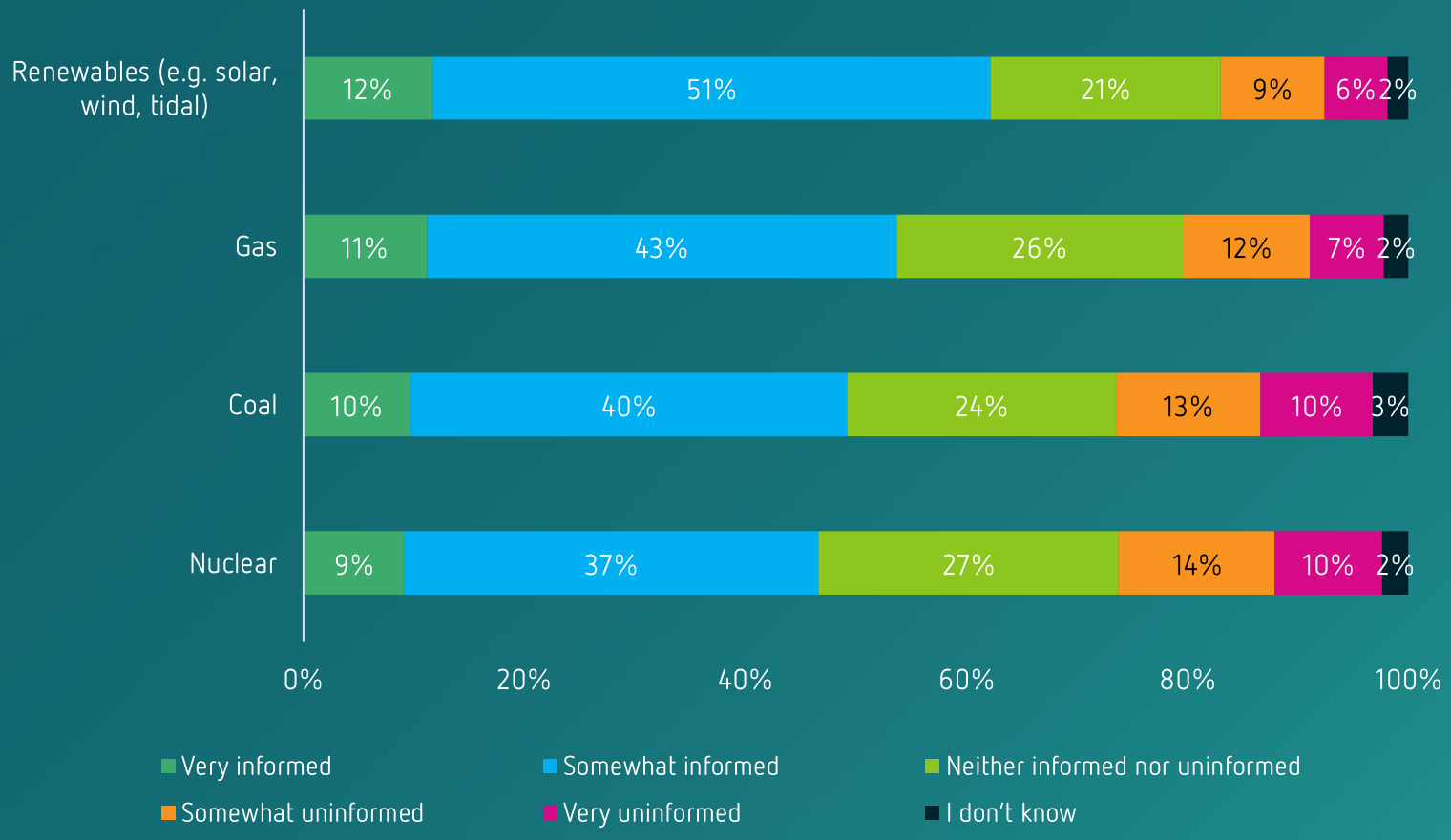


Figure 1: how informed young people feel about energy sources in the UK

03. Access to information about nuclear

The majority of respondents agree or strongly agree that nuclear provides an **affordable (55%) and reliable (61%)** energy source for the UK which will **help combat climate change (60%)**. Slightly fewer respondents (49%) agreed that nuclear provides a safe energy source.

Young people are just as likely (if not more likely) to trust family members to give them accurate information on nuclear energy as their teachers. **Scientists are seen as trustworthy**, with 76% of young people 'very likely' or 'likely' to trust scientists to provide them with accurate information about nuclear energy. **Trust in energy companies sits at 53%**, whilst confidence in politicians is low, with only 9% stating that they'd be 'very likely' to trust them to give them accurate information.

Young people were **most interested in finding out about safety (43%)**, how nuclear energy is generated (33%) and the relationship between nuclear energy and climate change (32%).

Urenco facility
(Image: Urenco)

03. Perceptions of careers in nuclear

Almost two-thirds **(65%) of all respondents said they would be interested in careers in nuclear** (either in technical or non-technical roles), while a further 15% indicated they would like to find out more about opportunities in nuclear.

Nearly a third (32%) of **young people believe that a university degree or post-graduate qualification is needed** to work within the nuclear industry. Far fewer respondents (10%) thought that vocational qualifications could offer an entry point and only 11% believed that an apprenticeship would be sufficient.

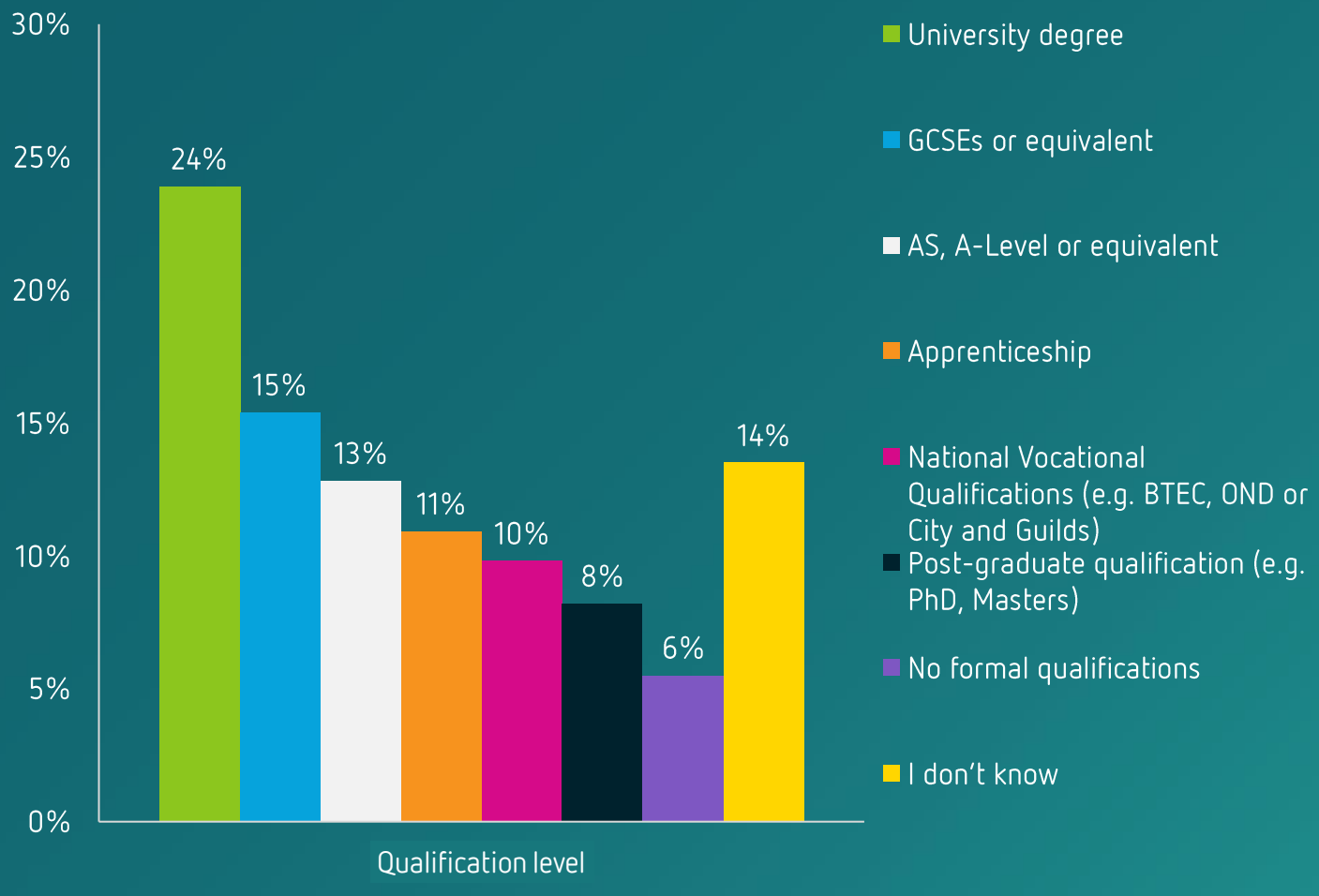


Figure 2: The minimum level of qualification respondents think is needed to work within the nuclear energy industry

03. Perceptions of careers in nuclear

More than two-thirds (70%) of respondents believed that a career within the nuclear industry would be **challenging** (rather than uninspiring, 6%) and **fulfilling** (rather than pointless, 6%). Jobs were seen by the majority to be **technical** (70%), with only 10% of respondents believing that careers would offer creative opportunities. 58% of respondents believed that jobs would be **interesting** vs 15% who felt they would be boring. 73% of respondents believed that the jobs within the nuclear industry **follow procedures and routines** (rather than being unstructured, 6%). For all of these questions, a significant proportion of respondents chose 'neutral' or 'I don't know' indicating an **overall lack of insight into careers within the nuclear industry.**

When asked if a career in the nuclear industry might be **stressful** or **not stressful** a more even split was seen, with **46% of respondents believing that it would be stressful**, 12% saying not stressful and a 36% responding neutrally.

Good **scientific and mathematical skills and knowledge** were perceived to be amongst the top three attributes needed for a career within the nuclear industry with 43% and 32% of respondents respectively selecting these, along with accuracy/attention to detail (31%) and logical thinking (26%).

03. Personal connections to nuclear

We used the survey to explore whether living near a nuclear facility or knowing someone who works in the nuclear industry makes a difference to young people's views. Young people who fell into these groups were:

	All respondents	Know someone who works in the nuclear industry	Live near to a nuclear facility
Significantly more likely to feel 'very interested' in science	44%	80%	76%
Less likely to want reassurance about the safety of nuclear	43%	27%	32%
More likely to be interested in a career in the nuclear industry*	22-33%	41-46%	40-44%
Less likely to believe that a degree or scientific skills are needed to access jobs within the industry	24%	20%	16%
More likely to be in favour of nuclear as a way to combat climate change	12%	24%	21%
More likely to say they feel 'very informed' about science	11%	35%	33%
More likely to feel informed about nuclear	9%	22%	21%

Table 1: Responses to questions about perceptions of nuclear comparing those without a connection to nuclear, and those with

** Range of responses to three statements regarding scientific/technical; environmental; and other (HR, marketing etc.) career pathways*

Workshop analysis

In May and June 2023, the BSA held online workshops for 39 young people from across the UK. The aim was to further explore the findings from our national survey, including young people's awareness of nuclear energy and careers in the nuclear industry. Throughout the workshops, we used a combination of interactive polls and structured group discussion to find out what young people think.

A copy of the workshop protocol can be found in Annex 2.

04. Young people's understanding and awareness of nuclear energy

Workshop participants felt most knowledgeable about fossil fuels, followed by renewable energy sources, then nuclear energy and finally, biomass.

Young people talked about being able to **visually recognise and identify renewable energy sources in their physical environment but felt this wasn't true of nuclear energy**. One participant talked about fossil fuels being part of our collective cultural memory.

> "I think because fossil fuels have been used for longer [people are more aware of them]. There are like, more sources of information out there. And sort of it's embedded in our history, because the UK was part of the Industrial Revolution."
> - workshop participant, aged 18

Young people felt that there was much **more coverage in the news and media relating to renewable energy**, relative to the coverage that nuclear energy receives. In general, young people in the workshop felt that the **coverage that nuclear receives in the media is negative** and either centres on fears around safety and environmental impact, or the time and expense of building nuclear facilities. Activism against climate change appeared to be equated with the promotion of renewables such as wind, wave and solar rather than nuclear.

> "I hear about solar every day and I hear about wind, but like, I hardly ever hear about nuclear energy. It is not talked about as much as the other ones, so I have little to no knowledge about it."
> - workshop participant, aged 17

Young people told us they receive very little information about nuclear energy in school and that facts are taught in isolation without any reference to how nuclear energy might impact (positively and negatively) society. They reported that most teaching takes place within science subjects (largely physics) and is focused on 'scientific principles'. For example, atomic structure, radioactivity and nuclear reactions. This was also true for students studying triple science, where topics are usually covered in more depth and breadth.

Some young people reported that they learned about the impact of nuclear on the environment as part of their geography GCSE lessons, and about the Chernobyl disaster in science or history lessons.

Young people reported that they were **taught about both fossil fuels and renewable energy more frequently and in more depth than nuclear energy**. Topics featuring renewable energy and fossil fuels are covered in both the science and geography GCSE specifications.

05. Young people's understanding of the net zero agenda and the role of nuclear in providing a recognised, sustainable and low-carbon energy solution

Young people **were familiar with the terms 'net zero', 'clean energy' and 'sustainable energy'**, but most found it challenging to articulate definitions or talk with confidence about these topics. When asked for ideas about how we might reach net zero, responses centred mainly around the use of solar, wind and hydroelectricity to limit greenhouse gas emissions.

Participants felt that **nuclear energy could potentially contribute to combatting climate change and the provision of sustainable, low-carbon energy**, but told us they did not feel informed enough to draw a conclusion. Some participants voiced strong support for nuclear energy, seeing real potential benefits to adopting it as part of the UK net zero strategy.

> "In terms of nuclear energy, having [an] impact on climate change, I think it could have somewhat of an effect, but I think theres so many more factors that have to play into it. And in terms of a cleaner energy solution, again, I'd probably need to look into it more to be able to say for certain whether it could be a clean and fully sustainable energy source."
> - workshop participant, aged 17

None of the participants understood the broader nuclear fuel cycle or how energy is distributed to the national grid - a significant number of participants were surprised to learn that nuclear energy supplies British homes. In some cases, hesitance towards adopting nuclear energy was exacerbated by gaps in knowledge and misconceptions.

> "It [nuclear energy] is all like newer research. And, you know, people tend to not be so comfortable with new things"
> - workshop participant, aged 18

There was **a strong appetite amongst young people to find out more about nuclear energy**, particularly how it 'works' and the low carbon benefits it can offer. Other issues of significant importance to young people were the safety of nuclear energy and waste management.

05.

We used interactive polling to ask young people how important the issues of 'climate change', 'sustainable energy' and 'clean energy sources' were to them:

In line with the national survey, 'climate change' and 'sustainable energy' were both seen as highly important issues and were rated at least 4 out of 5. 'Clean energy sources' were rated as 3.85. We then repeated this exercise, this time asking participants to rate how relevant they felt the role of nuclear energy was in terms of tackling climate change and providing a clean, sustainable energy source (results below). Overall, participants felt that nuclear energy could perhaps play a part in helping us move towards cleaner, more sustainable and climate-friendly energy production but told us they did not feel informed enough to draw a firm conclusion.

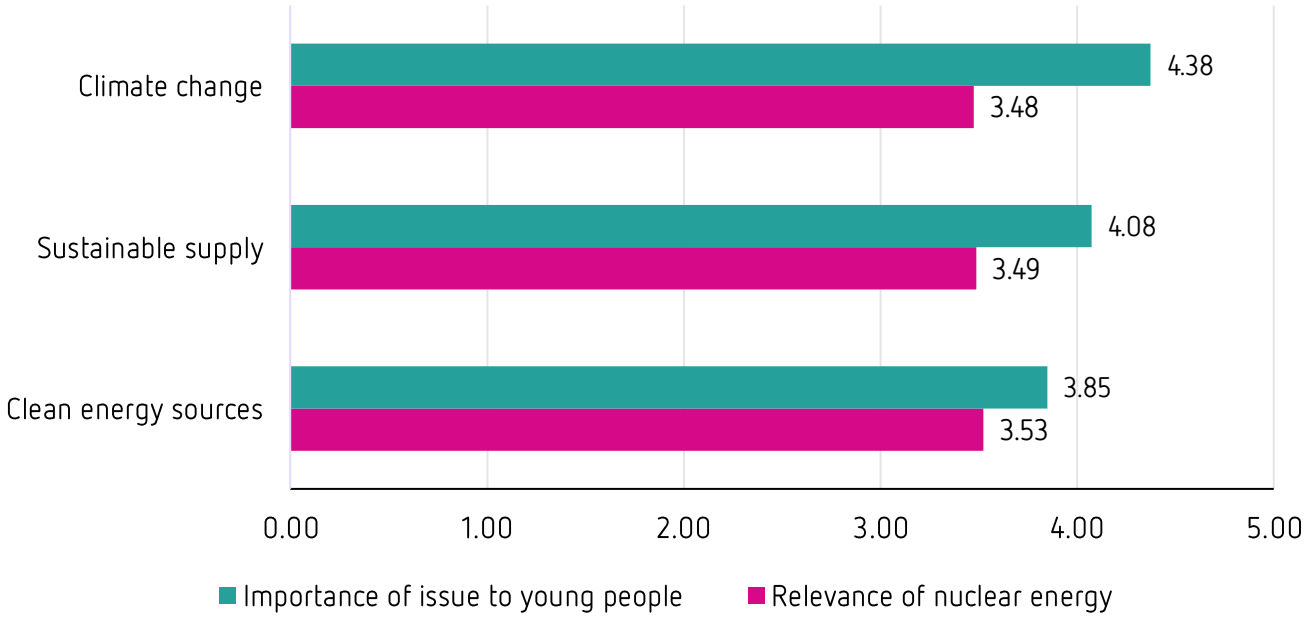


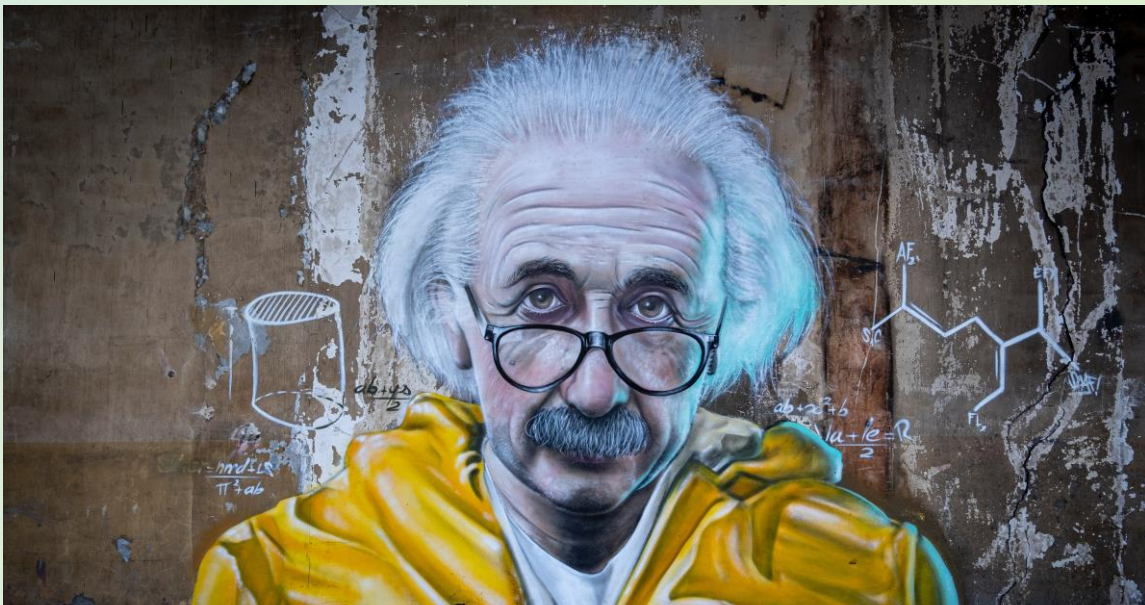
Figure 3: Importance of issue vs relevance of nuclear energy in helping us move towards cleaner, more sustainable and climate-friendly energy production*

** Weighted average scale of 1 to 5 with 5 being 'most important' and 0 being 'least important', n=39.*

06. Young people's awareness of careers and employment opportunities within the nuclear industry

Before the workshop, we gathered young people's perceptions of who they think works in the nuclear industry. The majority of participants told us **they thought that people who work in the nuclear industry were typically aged 35 and over, male and white**. Several participants spoke about how nuclear energy is represented on television and in films and felt that this contributed to their perception of a lack of diversity within the industry. Others were careful to point out that gender and ethnicity wouldn't matter.

> "I think, unfortunately, science is quite a male-dominated industry, which I don't think it should be, but that's kind of the perception we have of people working in science... Most famous scientists, like the ones that most people know about, are like Einstein or Isaac Newton and that kind of idea of [an] old white man with crazy hair has just been, kind of pushed."
>
> - workshop participant, aged 15



06.

All agreed that jobs within the nuclear industry likely required a **high level of knowledge and technical capability**, specifically relating to either engineering or science qualifications. Typical roles within the nuclear industry included those associated with safety, plant operation/maintenance and scientific research.

Some participants felt that the **nuclear industry might be seen as an 'unsafe' and 'dangerous' place to work.** Most participants thought that these perceptions again came from **shows, films and adverts that portray the nuclear industry in a negative light**, showing it to be both dangerous and polluting.

The participants in our workshops felt that they were **not at all informed about career pathways** and opportunities within the nuclear industry. They told us that this was due to a) their lack of awareness about the nuclear industry in general and b) a lack of career information provided at school.

Young people told us the following would help them access careers in the nuclear industry:

- Better careers education in schools.
- More accessible information relating to salaries within the nuclear industry, particularly in the context of the cost-of-living crisis.
- Information about the wider opportunities and jobs available - not just those limited to technical roles or those that require a degree in science or engineering.
- Information about how jobs within the industry can make a positive difference to people's lives and contribution to tackling climate change.

07.

Recommendations

Young people are open to nuclear as a source of energy and as a career, but they have told us they aren't receiving the information they need to participate in discussions about nuclear energy, and that there aren't opportunities for them to have their views heard.

The following recommendations outline key topics, principles and approaches that could be employed to enable young people to feel more included, involved and confident in talking about nuclear energy.

#1
There is a particular appetite from young people to learn more about the following key topics:

- How nuclear energy could contribute to cleaner, more efficient or more sustainable energy (e.g., longevity of supply, carbon emissions and reliability) and how these factors stack up against other sources of energy such as fossil fuels.
- Human and environmental safety, including the impact of nuclear sites on their local area.
- The mechanisms and origins of nuclear energy - how it was discovered, what makes it a good source of energy and the journey from source materials to electricity arriving in our homes.
- Careers within the nuclear industry, including information on salaries and the diversity of people and roles within the industry, particularly roles that do not require an engineering or science degree.
- Information about how the industry is working to tackle stereotypes and be inclusive and accessible to all.

#2 Communications about nuclear energy and careers should adopt the following principles:

- Be factual, balanced and transparent about nuclear energy, presenting both the benefits and the risks; provide facts and figures to back up claims.
- Be accessible and clear, signposting to further information as required to provide a level of detail which allows young people to engage with the topic and form their own opinions.
- Be mindful of existing perceptions of nuclear, and be aware that young people may not have had a lot of information about nuclear in the past. Build on the information they do know, using a narrative approach rather than 'myth-busting' (which can reinforce negative views and polarisation).
- Present information about nuclear in context, for example, how nuclear energy can impact society and young people's daily lives.
- Present a future within nuclear that young people have an opportunity to shape.

#3
Involving young people in shaping a conversation about nuclear energy:

- Establish a network of youth ambassadors, potentially drawing upon the expertise of those young people who have a personal connection to nuclear, to expand awareness and knowledge of nuclear energy via peer-to-peer learning.
- Establish a 'Youth Council' to shape communications campaigns and strategies related to education and careers.
- Consider commissioning further focus groups and surveys to gather the views and opinions of young people to steer planning and engagement.

08. Information about project partners

British Science Association

The British Science Association (BSA) is a charity working towards a future where science is more relevant, representative and connected to society.

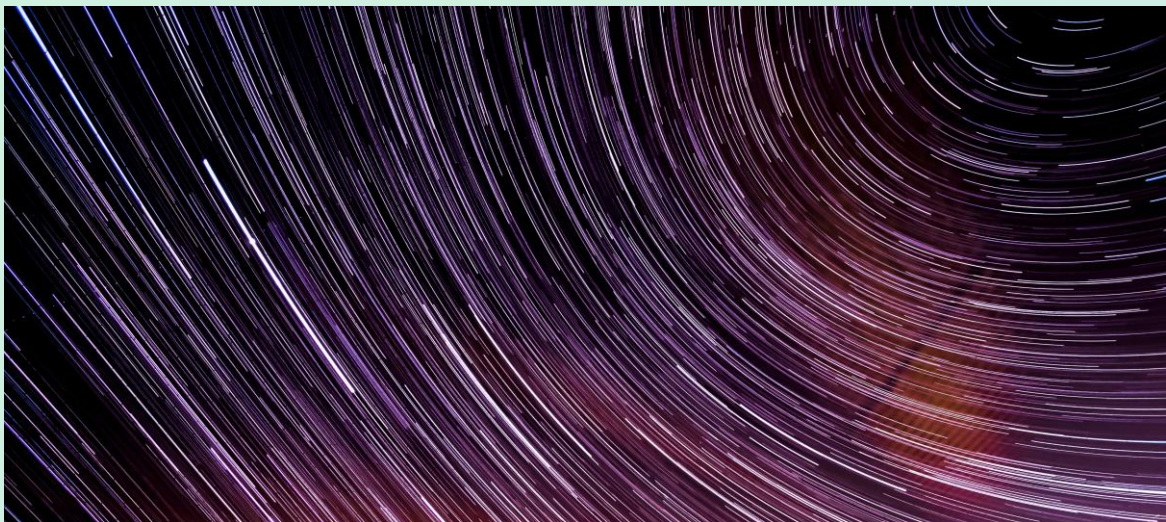
We develop science engagement programmes for audiences underrepresented in, and underserved by, science, technology, engineering and mathematics (STEM). We deliver our work through the education sector, public-facing events and campaigns, grant-making, community-led engagement and stakeholder influencing, with a particular focus on improving equality, diversity and inclusion (EDI) in science.

We believe that society's biggest challenges cannot be solved by science alone; via our programmes we bring together underrepresented groups (including young people) with thought leaders, opinion formers and professionals from across business, policy, science/research and civil society By unlocking the potential of a more diverse group of people, we increase our ability to tackle some of the world's most intractable challenges and shape our future for the better.

Urenco

Urenco is an international supplier of enrichment services and fuel cycle products with sustainability at the core of its business. Operating in a pivotal area of the nuclear fuel supply chain for 50 years, Urenco facilitates zero carbon electricity generation for consumers around the world.

Urenco is committed to continued investment in the responsible management of nuclear materials; innovation activities with clear sustainability benefits, such as nuclear medicine, industrial efficiency and research; and nurturing the next generation of scientists and engineers.



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Annex 1

Future Forum survey data, May 2023

Working on behalf of Urenco, the British Science Association (BSA) undertook a national survey of 1,000 14 to 18-year-olds in May 2023 via market research partners OnePoll.

Annex 1 provides the full survey results below.

1. Which of these statements best describes your relationship with science?	%
I'm very interested in science – I actively seek out science news, events, activities, or entertainment	44
I'm interested in science, but I don't make a special effort to keep informed	43
I'm not interested in science	11
I'm not sure	2

2. How informed or uninformed do you feel about scientific research and its impact on society?	%
Very informed	11
Somewhat informed	51
Neither informed nor uninformed	23
Somewhat uninformed	10
Very uninformed	4
I'm not sure	3

3. How, if at all, do you mostly hear about how scientific discoveries impact everyday life?	%
School, college or university	40
Social media	26
News (i.e., online, newspapers, TV or radio)/internet search	14
Friends or family	12
Museum visits/days out/events	3
N/A – nowhere in particular/I don't know	5

4. Which of the following issues are of most importance to you in terms of improving our lives in the future? [select up to 3 options]	%
Climate change	45
Sustainable energy	36
Cost of living	35
Young people's mental health and wellbeing	31
Drug development / disease prevention	20
Food production	18
Tackling crime	18
Financial equality in society	17
Gender equality	15
Supporting an ageing population	11
Migration of human populations	10
None of the above	1
I don't know	3

The following questions are about energy production within the UK and the role of the nuclear industry in particular:

5. How informed do you feel about each of the following sources of energy in the UK?						
	Very informed %	Somewhat informed %	Neither informed nor uninformed %	Somewhat uninformed %	Very uninformed %	I don't know %
Coal	10	40	24	13	10	3
Gas	11	43	26	12	7	2
Nuclear	9	37	27	14	10	2
Renewables (e.g., solar, wind, tidal)	12	51	21	9	6	2

6. To what extent do you agree or disagree with each of the following statements about nuclear energy?						
	Strongly agree %	Agree %	Neither agree nor disagree %	Disagree %	Strongly disagree %	Don't know %
Provides a reliable source of energy for the UK	15	46	23	4	2	10
Will help combat climate change in the UK	12	42	27	6	3	11
Offers affordable energy for the UK	13	42	26	6	2	12
Provides a safe source of energy for the UK	11	38	27	10	3	11

7. How likely or unlikely are you to trust the following people/groups to provide you with accurate information about nuclear energy?						
	Very likely %	Likely %	Neither likely nor unlikely %	Unlikely %	Very unlikely %	N/A; I don't know %
Celebrities	7	24	34	21	12	3
Community leaders	8	32	40	10	6	4
Content creators/social media influencers	10	25	36	17	10	3
Energy companies	17	36	26	12	6	3
Family	23	40	25	7	3	2
Friends	13	38	33	9	4	3
Journalists	11	33	30	15	9	3
Politicians	9	24	30	21	15	3
Scientists	34	42	14	6	2	2
Teachers / tutors	20	49	21	7	2	2

8. Which topics relating to nuclear energy, if any, would you most like the opportunity to know more about? [Select up to 3 options]	%
The safety of nuclear energy	43
How nuclear energy is generated	33
Nuclear energy and climate change	32
The cost of nuclear energy	30
The impact of nuclear energy on local communities	26
The amount of UK energy that comes from nuclear	26
Where the nuclear energy plants in the UK are located	25
Jobs and careers in nuclear energy	20
None of the above	4
I don't know	4

The following questions are about jobs and careers within the nuclear industry:

9. What is the minimum level of qualification you think is needed to work within the nuclear energy industry? [Select one]	%
University degree	24
GCSEs or equivalent	15
AS, A-Level or equivalent	13
Apprenticeship	11
National Vocational Qualifications (e.g. BTEC, OND or City and Guilds)	10
Post-graduate qualification (e.g. PhD, Masters)	8
No formal qualifications	6
I don't know	14

10. For each of the following pairs of words, select whether you think a career within the nuclear energy industry is more one or the other?

a) A career in the nuclear energy industry is more ...Challenging or Uninspiring?	%
Challenging	70
Neutral	20
Uninspiring	6
I don't know	4

b) A career in the nuclear energy industry is more...Fulfilling or Pointless?	%
Fulfilling	66
Neutral	22
Pointless	6
I don't know	6

c) A career in the nuclear energy industry is more...Technical or Creative?	%
Technical	70
Neutral	17
Creative	10
I don't know	4

d) A career in the nuclear energy industry is...Boring or Interesting?	%
Boring	15
Neutral	22
Interesting	58
I don't know	6

e) A career in the nuclear energy industry is...Stressful or Not stressful?	%
Stressful	46
Neutral	36
Not stressful	12
I don't know	6

f) A career in the nuclear energy industry...Follows procedures and routines or Is unstructured?	%
Follows procedures and routines	73
Neutral	17
Is unstructured	6
I don't know	5

11. Which of the following skills or attributes do you think you would need most for a career within the nuclear energy industry? [Select up to 3 options]	%
Good scientific skills and knowledge	43
Good mathematical skills and knowledge	32
Accuracy and attention to detail	31
Logical thinking	26
Work well as part of a team	24
An interest in sustainability and the environment	24
Good communication	19
Open-minded approach	14
Creativity	14
Patience	14
Work well alone	10
None of the above / I don't know	4

12. Do you live near to (approximately 10 miles/16km from) a nuclear energy facility? You can use the map linked here to check your location	%
Yes, I do	20
No, I don't	61
I don't know	19

13. Do you know anyone who works within the nuclear energy industry?	%
Yes, I do	19
No, I don't	81

14. Would you be interested in any of these types of careers within the nuclear energy industry? [Select all that apply]	%
I'd be interested in a science or technical role, like a systems engineer	33
I'd be interested in an environmental role, like choosing sustainable suppliers	30
I'd be interested in a non-technical role, like communications, HR, or site management	22
I'm not currently interested, but I would like to find out more	15
I wouldn't be interested, and I wouldn't like to find out more	12
I don't know	9

15. Comparison of 'total' responses versus those from young people who a) know someone from the nuclear industry or b) live near to (approximately 10 miles/16km away from) a nuclear energy facility:

	All respondents %	Respondents who know someone who works in the nuclear industry %	Respondents who live near to a nuclear facility %
Are very interested in science	44	80	76
Feel very informed about science	11	35	33
Find out about science on social media	26	35	37
Choose climate change as a key issue	45	26	30
Choose sustainable energy as a key issue	36	22	24
Feel very informed about coal	10	22	21
Feel very informed about nuclear	9	22	21
Feel very informed about renewables (e.g., solar, wind, tidal)	12	20	20
Feel very informed about gas	11	23	23
Strongly agree that nuclear energy is reliable	15	25	27
Strongly agree that nuclear energy will combat climate change	12	24	21
Strongly agree that nuclear energy is affordable	13	25	25
Strongly agree that nuclear energy is safe	11	20	21
Want to know about the safety of nuclear	43	27	32
Think you need a degree to work in nuclear	24	20	16
Think careers in nuclear are boring	15	28	27
Think you need scientific skills to work in nuclear	43	26	29
Interested in a technical role within the nuclear industry	33	44	40
Interested in an environmental role within the nuclear industry	30	41	43
Interested in a non-technical role within the nuclear industry like communications, HR, or site management	22	46	44

Annex 2

Workshop protocol

Workshop Aims:

- To discover what level of awareness young people have about the role of nuclear in providing a recognised, sustainable and clean energy solution.
- To discover what young people understand about careers in the nuclear industry and what would motivate them to find out more.

Introduction & workshop purpose	The purpose of the workshop from the facilitator. Participants are asked to visit *menti.com* on their phones to engage with questions. **MQ warm-up:** Pin on the map where you live. **MQ warm-up:** How busy have you been this past week? Scale: Extremely busy! to Not too busy at all *NB.* lots of students have been revising, so might be good to get a show of hands as to how many are revising at the moment and to reinforce our thanks for them making time in their busy schedules to attend. The group splits into smaller, age-defined, sub-groups for in-depth discussion of topics.

Part 1 – Interest in/awareness of topics relating to energy generation/ nuclear energy	Explain the aim of this next section of the workshop- to gauge the level of interest in and awareness of certain topics around the theme of energy within the UK. There are no right or wrong answers – this is about hearing a range of views, and the more the better. Talk through the options below to ensure participants understand them, especially. *hydroelectric* and *biomass.*

Part 1 cont. – Interest in/awareness of topics relating to energy generation/ nuclear energy	**MQ1.** What energy sources do we use to generate electricity in the UK? Rank these options in order from 'gives us most electricity' to 'gives us least electricity: • Coal • Gas • Solar • Wind • Hydroelectric • Nuclear • Biomass • Other Reveal the actual proportion by showing: https://grid.iamkate.com/ (live infographic with data at the top of the page. You can scroll down to show different time periods). Share https://grid.iamkate.com/ in the chat and give participants a couple of minutes to explore the dashboard. *NB.* This dashboard shows the energy sources being used to power the National Grid (i.e., provide electricity to our homes and factories). It does not include energy to power transport, which is still predominantly fossil fuel-based. **Prompts:** Is anyone surprised by this? What surprises you? Why? What's shaped your perceptions of these energy sources do you think? **Q.** Thinking about nuclear energy in particular, what would you like to know/find out more about? **Discuss responses. Prompts:** What exactly about 'X' would you like to know? Why? What matters less to you? Why? **MQ2.** Looking at these energy categories, which do you know most about? Which do you know least about? Allocate 100 points according to how much you know. More points = more knowledge. • Fossil fuels (coal, gas and oil) • Nuclear energy • Renewables (e.g. solar, wind, hydro) • Bioenergy and waste **Discuss responses. Prompts:** Why do you have more knowledge of some and less of others? Where does your information on these energy sources come from?

Part 2 – Net zero and sustainable energy generation	This section of the workshop is about the changes we need to make in the future to ensure our energy supply is as clean and sustainable as possible. For your pre-workshop task, we asked you to do a bit of research around the concept of net zero. What does net zero mean? And 'clean energy' – what do we mean by that? How about the term 'sustainable energy'? What does that mean to you? Explore these terms with participants and ensure they are understood – show simple definitions if needed. *NB.* no need to make notes on jamboard here. **MQ3:** How important are these issues to you? Scale: 'very important' to 'not important at all'. • Climate change • Clean energy sources • Sustainable supply **MQ4:** How relevant is the role of nuclear energy in providing a solution to these issues? Scale: 'very relevant' to 'not relevant at all'. • Climate change • Clean energy sources • Sustainable supply **Discuss responses to MQ3 & MQ4.** **Q.** If you had the chance to produce a video telling young people about the nuclear industry, what topics would you include? Why? **Allow thinking time, then discuss responses.**

Part 3 – Careers within the nuclear energy industry	**Q.** If you were to visit a nuclear energy facility, who would you find working there? What sort of person are they? What would they be doing? **Discuss responses.** As part of your pre-workshop task, we asked you to submit a sketch or a short paragraph to illustrate a typical nuclear-sector worker… **Show the charts/word clouds provided by the BSA.** Why do you think these ideas exist around careers within the nuclear industry? Where do they come from? Are they real? **Q.** What do you think might encourage more young people to consider careers within the nuclear energy industry? **Explore responses.**

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