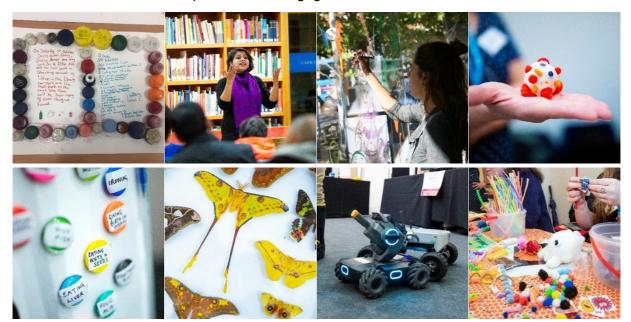
# FUTURES 2022: A Festival of Discovery Work Package 5: Impact Assessment report

We had an absolutely brilliant time, the whole team thoroughly enjoyed themselves and we really appreciate this excellent opportunity to engage with a large variety of people about our research.

For the fifth year running *FUTURES* successfully connected researchers with citizens across the South West of England with almost **72,000 participants** and **291 researchers** involved in 29 different events. Greater numbers of people were involved than ever before and audience feedback continues to be extremely positive. It is clear that participants value the insight they gain into what happens in universities and researchers benefit greatly from the opportunity to communicate their work and practice their engagement skills.



The variety of events spread across a wide geographical area opens up research to diverse publics in novel ways and allows new relationships to be formed with partners and venues. The sheer variety of research topics showcased offered something of interest to any attendee and a myriad of ways to inspire the next generation of researchers.

What a great way for the University to engage with the community. All ages and interests were catered for and great to see music, culture and art being celebrated!

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# 1 Management of Impact Assessment

The Impact Assessment Work Package for *FUTURES 2022* (WP5) was led by the Deputy Head of Public Engagement at the University of Bath and coordinated by the Evaluation Officer in the University of Bristol's Public Engagement team. Evaluation planning, delivery, data analysis and reporting were supported by the SERIO Research Unit at the University of Plymouth; an external evaluation consultant (Hope Stone Research); and an evaluation assistant (Science Atelier Ltd). Regular WP5 subgroup meetings were convened involving a representative from each Institution. Each Institution conducted the evaluation of its own activities using a common Evaluation Toolkit. This report concerns only activities delivered as part of Work Package 2 and does not cover Work Package 3 (Researchers in Schools).

# 2 Impact Assessment Methodology

FUTURES 2022 draws on a wide range of qualitative and quantitative assessment tools, along with metrics of participation numbers and social media analytics. The tools are developed from a number of key research questions as listed in Appendix 3. The approach to impact assessment builds on that used successfully in 2021, 2020, 2019 and 2018, i.e. a range of digital and in-person approaches to capture feedback across the mixed delivery format of the programme. The underlying principle is to ensure that evaluation does not detract from participants' enjoyment of the experience but allows all those involved to give their feedback. The following evaluation tools were deployed:

#### Quantitative:

- Eventbrite Registration Questions (asking about motivations to attend) n=1027
- Post-event attendee feedback survey (sent to all those who registered for events via Eventbrite) n=57
- Attendee postcard questionnaires (distributed and collected at in-person events) n=286
- Participant online feedback polls (pop up at online gaming and similar activities) n=27
- Opinion 'Walls' attendee self-completion questions at in-person events n=148
- Teacher survey n=4
- Post-event researchers' feedback survey n=75

#### Qualitative:

- 'Snapshot' interviews conducted with attendees at in-person events n=81
- Attendee observations at events (primarily in-person but some online) n=87
- Researcher debriefs during or at end of events n=39
- Partner debriefs during or after events n=7
- Ad-hoc feedback n=11
- Social Media comments n=23

#### Metrics:

- Organiser attendee and participant estimates
- Social media analytics on participation numbers and interactions (e.g. likes, comments, shares etc)

Evaluation tool templates and survey questions are included in Appendix 4 with the numbers of responses for each of the evaluation methods listed in Appendix 2. The overall response rate from the combined methods for in-person/live events was 43%.

# 3 Activity Metrics

## 3.1 Reach: How many people, and who, interacted with FUTURES 2022?

Based on reported participation figures and online analytics a total of 71,919 people took part in the 29 different *FUTURES 2022* events<sup>1</sup>; 4,050 participated live<sup>2</sup>, 46,2636 engaged with asynchronous activities<sup>3</sup> and a further 21,633 heard *FUTURES On Air* radio broadcasts<sup>4</sup>. A full breakdown of event attendance is given in WP2 Report on Activities.

Attendance type	
In-Person (Live)	3,375
Online (Live)	675
In-Person (Asynchronous)	36,103
Online (Asynchronous)	10,133
Broadcast	21,633
Total	71,919

Table 1: FUTURES 2022 Attendance figures

Of those responding to the Public Survey, the majority (70%) said they took part with their family. 21% took part on their own and further 11% did so with friends, as illustrated in Chart 1.

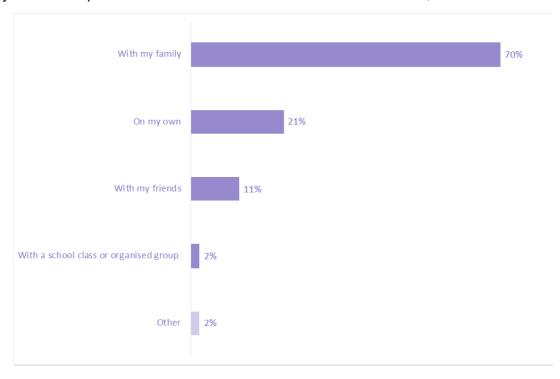


Chart 1: Did you attend or take part in any FUTURES 2022 events or activities, either in person or online? (% of those who took part n=53)

<sup>&</sup>lt;sup>1</sup> A number of the 24 separate activities (e.g. Walk & Talk and Conversations On...) comprised multiple sessions, giving a total of 29 events.

<sup>&</sup>lt;sup>2</sup> In-Person and Online events where direct interaction with researchers was possible.

<sup>&</sup>lt;sup>3</sup> Some in-person event attendances were based on estimated or observed footfall.

<sup>&</sup>lt;sup>4</sup> This audience number includes numbers of streams of the programmes from online platforms.

# 3.2 How did people find out about FUTURES 2022?

Among those registering via Eventbrite most found out about the event they booked either via social media (35%) or word of mouth (32%), see Chart 2.<sup>5</sup> It is likely that many of those who found out via word of mouth did so via social media or chat apps such as WhatsApp. Of those using social media to find out, most (90%) mentioned Facebook, with just 7% mentioning Twitter and 3% Instagram. Of those who mentioned an email newsletter, the vast majority cited the source being one of the participating universities, but with many also mentioning their or their children's school, and a few mentioning the 'PSCI-Com' mailing list.

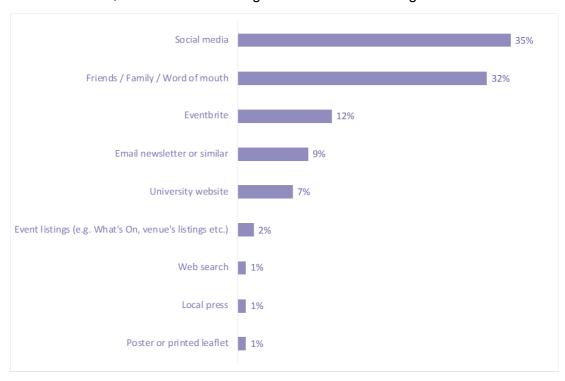


Chart 2: How did you hear about this event? (n=1027 who registered via Eventbrite)

# 3.3 Audience Demographics: Who do we reach and where? 6

#### Where do audiences come from

Postcode data shows that audiences attended from a very large number of postcode areas (around 65), primarily in the geographical locations of the host universities. Based on the combined postcodes given by audiences, those of EX4, BS5, EX1, EX2 and PL3 were the most mentioned (see Table 2). BS5 is fairly deprived (average IMD<sup>7</sup> of approx. 3, i.e. in the bottom 30% of areas) and includes wards such as Easton and Barton Hill, which are particularly deprived. A community group from Barton Hill attended the University of Bristol *SSGB Up Late* event, which may explain the high numbers from the BS5 postcode at this event. Additionally,

<sup>&</sup>lt;sup>5</sup> It should be noted that many people would have found out simply by passing by or near an event.

<sup>&</sup>lt;sup>6</sup> The demographics in this section are based on three combined evaluation questionnaire sources. While we cannot be certain there are no duplicate responses it is unlikely that many if any completed more than one evaluation questionnaire.

<sup>&</sup>lt;sup>7</sup> Indices of Multiple Deprivation, see: <a href="https://www.gov.uk/government/statistics/english-indices-of-deprivation-2019">https://www.gov.uk/government/statistics/english-indices-of-deprivation-2019</a>

many school pupils took part at the SS Great Britain event from areas of high deprivation in Bristol, but these participants would not show on the public survey feedback.

In Plymouth, the *Geo-trail Tour* and *Voyage of Discovery* both took place in PL1 which may account for attendees from this postcode, PL4 is a popular student area and PL3 potentially one of the more affluent areas in Plymouth. This suggests events are very much servicing a local audience due to their primarily in-person nature.

In contrast the Online Poll response (primarily for the *Gaming Climate Change* activity) showed a much more diffuse audience, from the across the UK and a number from the USA too.

Postcode	Number of responses	Postcode	Number of responses
EX4	29	EX17	8
BS5	22	PL12	8
EX1	21	TQ13	8
PL3	16	BS16	7
EX2	16	PL4	7
PL1	9		

Table 2: Top audience postcodes (n=222 Postcards, n=18 Polls, n=53 Public Survey, n=293 Total)

#### Household circumstances

While the majority (80%) of attendees responding to the Public Survey reported that they were either getting by or were living comfortably on their present income, a substantial minority (15%) said they were finding it difficult to some extent. See Chart 3.

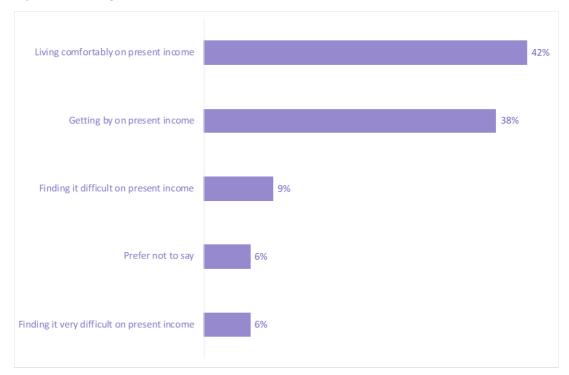


Chart 3: Which one of these phrases comes closest to your own feelings about your household's income these days? (n=53)

# 3.4 Age, gender and ethnicity

**Age:** Events appear to have appealed to a wide range of ages but with a noticeable gap between 16-25. Those aged under 16 are primarily from school groups rather than attending with families. There are variations between survey samples; both Public Survey and the Online poll were skewed towards those aged 45 or older whereas the Postcard Surveys completed at events were done so by younger visitor although again, those aged 16-25 appear either less inclined to attend or to complete and evaluation questionnaire. See Table 3.

Age	Responses	%
Under 16	56	15%
16-20	11	3%
21-25	14	4%
26-35	29	8%
36-45	78	21%
46-55	47	13%
56-65	45	12%
65+	39	11%
No response	47	13%

Table 3: Age of attendees (n=294 Postcards, n=19 Polls, n=53 Public Survey, n=366 Total)

**Gender:** 58% of responses were from females, 40% male. Both the Public and Postcard Surveys were answered by a higher proportion of women than men whereas those responding to the online poll were all male bar one. See Table 4.

	Responses	%
Female	185	59%
Male	126	40%
Other/NS	4	1%

Table 4: Gender of attendees (n=246 Postcards, n=16 Polls, n=53 Public Survey, n=315 Total)

**Ethnicity:** Although those attending events appear to overwhelmingly self-identify as white (87%), compared with the South West average of 95.4%, 5% of attendees identified as Black and 3% as Asian, which is a significantly higher proportion than the population as a whole. However, within the three main urban areas where most responses came from, the distribution is less ethnically diverse than Bristol as a whole but above the city averages for Exeter and Plymouth. See Table 5.

Survey Res	ponses	% of responses	% of Bristol Pop.	% of Exeter Pop.	% of Plymouth Pop.
White British / Irish / European / Other	264	87%	84%	93%	93%
Black/ Black British	14	5%	6%	0.6%	0.6%
Asian/Asian British	8	3%	5.5%	3.9%	1.5%
Other/Mixed	23	8%	4.5%	2.4%	4.9%
NS (Not Stated)	48	16%	-	-	-

Table 5: Ethnicity of attendees (n=293 Postcards, n=12 Polls, n=53 Public Survey, n=305 Total)

## 3.5 Loyalty and new audiences

81% of those taking part in the Public Survey said they had not previously participated in *FUTURES*, suggesting that the programme is primarily reaching new rather than repeat audiences. Between 4-8% of respondents said they had taken part in previous FUTURES. However, of those who had not previously taken part, a third (33%) had taken part in other events and activities organised by the participating universities (although we don't know what kinds of the activities these were).

#### 3.6 Motivation to attend

Interest in the subject covered at the event was the primary motivator for people to book a place, with just over half (51%) stating this reason. Similarly important was that it might be good for their children (46%), and 30% hoped it would simply be fun. In many cases multiple reasons were given, combining all of these elements. It is worth noting that although *FUTURES* is no longer formally connected to European research, 5% still said they were interested in this aspect of the programme. As in previous years, a substantial number (15%) said they were interested in the venue, possibly in reference to places like SS Great Britain. See Chart 4.

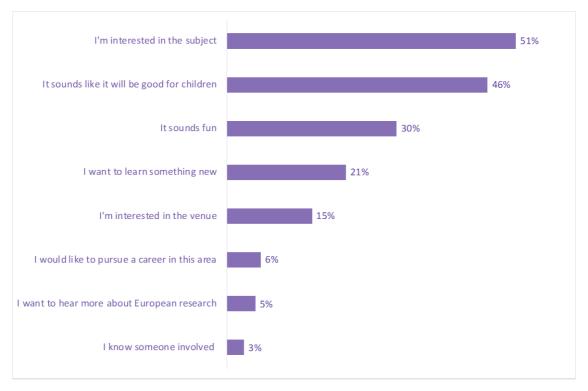


Chart 4: What made you want to attend the event? (n=1149 who registered via Eventbrite)

#### 3.7 Schools

Six schools were involved in one of the *FUTURES 2022* WP2 events, the *Schools Research Fair*. They came from a range of locations across Bristol, representing a variety of demographic backgrounds, including deprived communities and pupils with special educational needs. The overall attendance of 287 comprised 220 primary pupils, 36 secondary students, and 31 accompanying adults (teachers, teaching assistants and parental helpers). Many more schools' activities are taking place in Work Package 3 across 2022 and 2023.

#### 3.8 Researchers

291 researchers took part in *FUTURES 2022*, participating in 298 individual activity sessions. Almost half (44%) were from the University of Bristol and half (50%) from the other consortium partners (Universities of Bath, Exeter & Plymouth and Bath Spa University), with a further 18 researchers representing 13 other institutions, including the Universities of Cardiff, Cardiff Metropolitan, Aston, Cambridge, Wolverhampton, Durham & Aberystwyth, Imperial College, UCL, and two local NHS Trusts.

Gender balance amongst researchers was roughly equal in most institutions (see Appendix 1), with a slight skew towards more female researchers participating than male, which is in line with data from previous years and from other similar public engagement activities<sup>8</sup>.

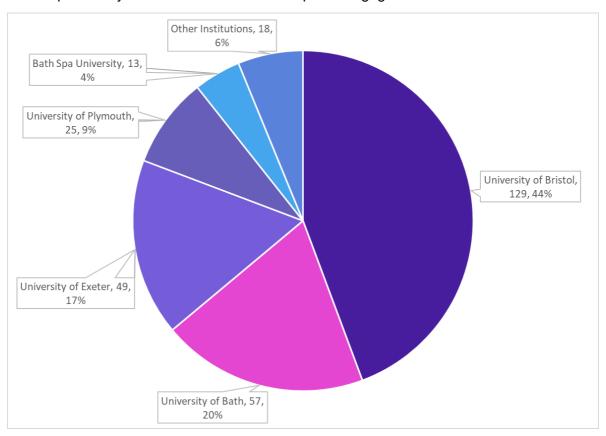


Chart 5: Number of Researchers from participating Institutions

**Survey Responses:** 75 researchers completed the post-event survey. The majority (69%) were based at the University of Bristol, with 9% from Exeter, 9% from Plymouth, 4% from Bath Spa, 3% from Bath and the remainder from other institutions. Reflecting that, most (73%) of those responding to the survey had taken part in *FUTURES 2022* in the Bristol area.

**Previous Experience:** Around a quarter (24%) of researchers responding to the post-event survey said they'd previously taken part in *FUTURES*, with 73% saying they had not done so (others were unsure). More generally, those taking part reported a range of previous

<sup>8</sup> It has long been recognised that participation in public engagement activities tends to be greater by female researchers. See, for example the Wellcome Trust report: <u>Factors Affecting Public Engagement</u> by Researchers (2015)

experience in public engagement, from 16% who were doing it for the first time, to 29% who were very experienced (6 events/activities or more). See Table 6.

Previous experience	%
No experience (0 events/activities)	16%
A little experience (1 or 2 events/activities)	35%
Quite a lot of experience (3-6 events/activities)	29%
Very experienced (6+ events/activities)	29%

Table 6: Before this year's FUTURES, what was your level of public engagement experience? (n=75)

#### 3.9 Evolution of FUTURES

FUTURES has experienced some significant changes over the past five years. Table 7 provides a comparison of audience and researcher metrics for the five editions so far.

	2018	2019	2020	2021	2022
Audiences <sup>9</sup>					
Participation in in-person & live events	1,906	3,334	1,440	4,282	4,050
Engagement with online activities,	3,351	2,400	43,117	37,719	67, 869
exhibitions & broadcasts					
Total	5,257	5,734	44,557	42,001	71,919
Activities <sup>10</sup>					
In-person activities	19	16	-	19	17
Online activities	1	1	48	16	7
Broadcast activities	-	-	-	1	1
Total activities	20	17	48	36	24
Other Metrics					
Researchers involved	229	261	260	247	291
Universities involved	2	2	5	5	5

Table 7: Evolution of FUTURES 2018-22

The 2018 and 2019 programmes involved just the universities of Bath and Bristol, and while the number of events were similar to 2022, they were overwhelmingly all in-person activities and therefore the overall reach was far more limited (5,700 in 2019 compared with 71,919 in 2022).

2020 saw two significant changes. First, the universities of Exeter, Plymouth and Bath Spa joined the *FUTURES* consortium, broadening the geographical reach significantly, including running events away from the main cities in smaller towns in Cornwall and Devon. Secondly

<sup>&</sup>lt;sup>9</sup> 'Participation' refers to live in-person and online events (e.g. via Zoom), with direct face-to-face or audiovisual contact between participant & researcher. 'Engagements' encompasses asynchronous social media & online activities, radio broadcasts, or exhibitions with passing footfall.

<sup>&</sup>lt;sup>10</sup> Event numbers may vary depending on how individual events were classified. For example, in 2020 each online Discovery Talk was classed as an individual event, whereas in 2021 a number of talks made up a single in-person event.

FUTURES operated under the restrictions imposed by Covid-19. All activities moved online and there were many more of them (48 compared with 23 in 2019). This led to a huge increase in the numbers engaged, albeit in some cases in a more ephemeral manner. 2021 saw the return to in-person events on a similar scale to 2019. This edition included online events, which although on a smaller scale than in 2020, were still successful in drawing in large digital audiences. 2021 also saw the first radio event, which proved successful in attracting further and wider participation.

2022 marked a return to an unrestricted in-person offer with 17 face-to-face events, similar to the 2021 and pre-2020 editions. Online events have continued in various formats – live, social media and pre-recorded, along with a hybrid radio and online event. The total number of events has reduced to 24, similar to 2019 (although the higher number of events recorded in 2020 and 2021 is in part due to the way they were categorised).

Whilst the in-person audience in 2022 of 4,050 is slightly lower than in 2021, this nevertheless exceeds the original audience target of 3,375 for these events and reflects the smaller budget available compared to the previous year. Looking at just asynchronous reach, 2022 was by far the most successful edition of *FUTURES* yet, with 67,869 people engaging via social media, hearing a radio broadcast or viewing an exhibition. Overall, the numbers engaged in 2022 easily exceeded the target of a minimum of 200 researchers and 50,00 people involved.

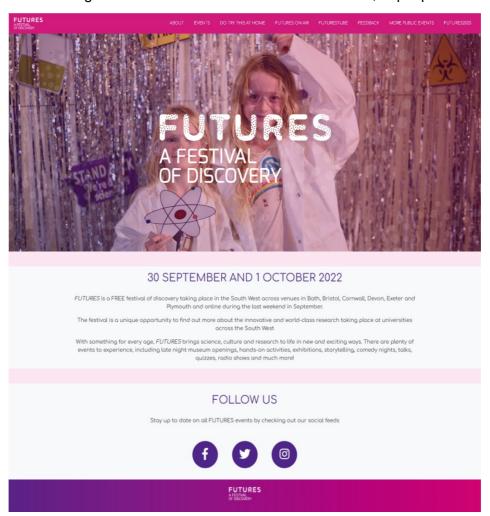


Figure 1: The FUTURES 2022 website home page

# 4 Impact objectives

# 4.1 Impact for citizens

#### **Enjoyment of events**

98% of Postcard Survey responses said they enjoyed the event they attended and Public Survey verbatim responses support this unequivocable response.

What a great way for the University to engage with the community. All ages and interests were catered for and great to see music culture and art being celebrated. PS

It was a brilliant opportunity to see real research laboratories and it was a lot of fun and really inspired young children to find out more about biology research. PS

It was great fun full of information and the hosts were great. PS

Loved the robots! Really fascinating psychology computer games. Thank you. PC, UOP-22-25-VOYAGE

This was a lot of fun and I wish there was more things like this. PC, UOP-22-25-VOYAGE

I really enjoyed this walk very much! The knowledge shown and shared by [the researcher] is excellent. Thank you so much for the hard job! PC, UOP-22-26-TOUR It was awesome! Great way to link storytelling and science. Engaging and fun. PC, UOB-22-9-TALES

# Learning something new

95% of Postcard Survey responses said they had learnt something new as a result of attendance, with many verbatim responses supporting this finding.

I really enjoyed the history behind the rocks and how far back it goes, millions of years ago! I learnt a lot in a short space of time. Very informative. PC, UOP-22-26-TOUR

Nice to learn the names of all the fossils and now I know what to look for in other rocks. PC, UOP-22-26-TOUR

Loved finding out about how we learn location and our responses to the treasure finding game. PC, UOP-22-26-TOUR

I enjoyed it so much, and I also found out about animals growing can still move around. I found out many ways to recycle plastic and how to reuse anything we use to fish:)
PC, UOP-22-25-VOYAGE

Highly informative. Helps me stay connected to the advancements of the technology necessary for developing interactive architecture. Please organise more similar events, make research visible! PC, UOBA-22-17-YOU

Learnt some background theories and how they are applied, and the areas where they are applied. Very good. UOBA-22-17-YOU

# Interest in research topics

When asked in the Public Survey, 60% of respondents said all the events they attended were interesting, 34% said some were interesting and only 6% said none they attended were. The most common adjectives chosen to describe *FUTURES* events were *Interesting* (96%) and *Inspiring* (81%). See Chart 6.

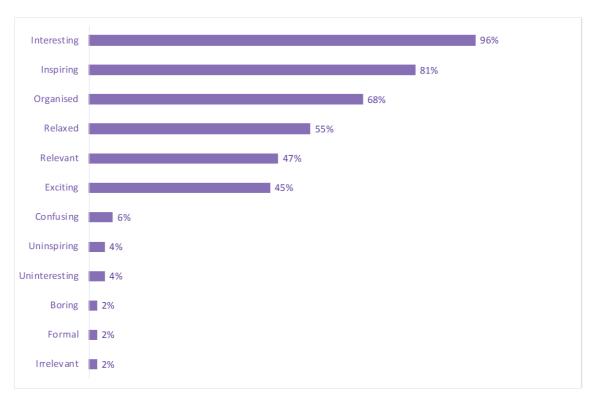


Chart 6: How would you describe the FUTURES events that you took part in? (n=53 Public Survey)

Verbatim responses confirm some of the above with attendees describing their experience in the following ways...

It is very inspiring for children and young people, so we would definitely come again. PS Just thank you to all the people giving their time and knowledge and hope to see more events like this in future, good venue but make full use of the space. PS

My daughter (7 years old) was really engaged in lots of the research, she was especially 'into' the law discussion between possession and ownership. At the end she said 'I don't want to leave mummy'. PS

It was just fantastic! As someone who organises events, I know much hard work goes into these things, so well done to everyone!

It was a great event with lots to do for all ages. Ideal for my little boy who wants to be a scientist. PS

I was very impressed and learnt a lot about the research regarding super bees. The presenter was very knowledgeable and I felt very positive about the future of bees being taken care of for future generations. All in all a positive educational and interactive event. PS

Much more approachable than. Say, a museum. A nice balance of subjects. PC, UOE-22-19-SHOP

#### **Curiosity and confidence**

Most (84%) attendees said *FUTURES 2022* had made them more curious about university research, while 69% said it had helped them feel more confident in talking about science and other university research with friends and family. See Chart 7.

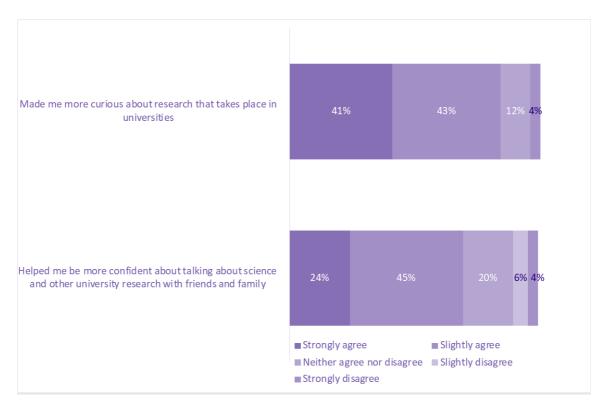


Chart 7: Attendance has... (n=53 Public Survey)

# Public awareness and understanding of university research

Over half (57%) of Public Survey participants said they had a better understanding of a research topic as result of attending a *FUTURES* event, and nearly as many (53%) a better understanding of the research that takes place at their local university. Around a third (32%) said they had gained a better understanding of the value of research and researchers to everyday life. See Chart 8.

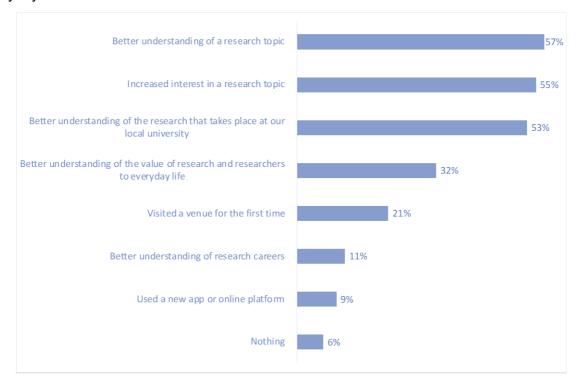


Chart 8: What (if anything) do you think you have gained from the FUTURES 2022 event/s? (n=53 Public Survey)

## Relevance of university research

Nearly half (47%) of Public Survey respondents included the word *Relevant* in their summation of the events they attended (See Chart 6). This was corroborated by 91% of Postcard Survey responses saying yes to the question *Did this feel relevant to you?* Additionally, three quarters (75%) of Public Survey participants agreed that attendance at *FUTURES* made them think that researchers are 'people like me', while almost the same number (72%) agreed it had made them think university research is relevant 'to my life'. See Chart 9.

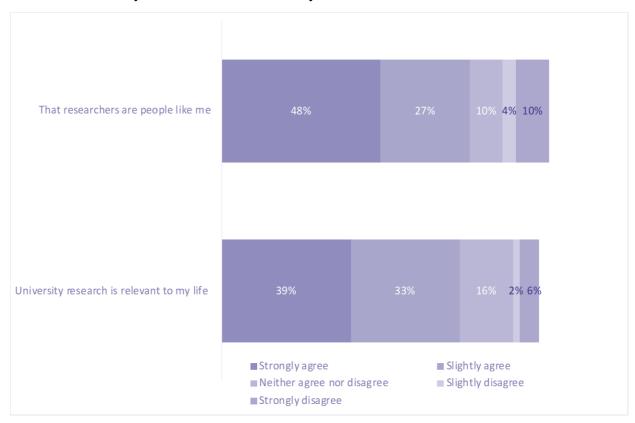


Chart 9: Attendance has made me think... (n=53 Public Survey)

The most common verbatim response when attendees were asked if researchers were like them was that they were very approachable and good with the children attending.

Seem like normal people. Positive to see young scientists and a mix of genders and backgrounds. SI, UOB-22-7-SRF

Seem approachable, very down to earth people. Accessible presentation of knowledge for children. SI. BSU-22-29-ISLAND

Everyone was very friendly/relatable. SI, UOB-22-7-SRF

Enjoyed having time to talk with researchers in the bar afterwards. SI, UOE-22-21-CITY

Clever people! They know so much about their subject. SI, UOE-22-19-SHOP Especially that they are young people like us. SI, UOE-22-19-SHOP

Although the public acknowledged researchers were academically good there was no hint that this made them unapproachable, rather the opposite. Attendees considered that the researchers they met were easy to connect with.

## Better understanding of what takes place at their local university

As shown in Chart 8, 53% of respondents said participation had led to a better understanding of what research was taking place in their local university. Comments from Snapshot Interviews suggest that for some, knowing what universities did was a revelation.

Didn't know this research was happening at Exeter. Generally, feel quite unaware of what is happening at Exeter University. SI, UOE-22-21-CITY

Didn't know about the research happening at Exeter. SI, UOE-22-21-CITY

Didn't realise this goes on here and linked to UoP. SI, UOP-22-24-DIRT

Did not know how much it (University of Plymouth) had changed since being a student over 20 years ago. SI, UOP-22-24-DIRT

# Universities contribution to society

Attendees taking part in the Snapshot Interviews were asked whether they learnt anything new about how universities contribute to society or their role in addressing future challenges. Around a third (35%) said they had, although quite a sizeable proportion (22%) said they had not, although in the latter case, many said this because they felt they already knew what universities do. Among those who said they did learn something, the responses were wide ranging from research in the fields of agriculture, drugs, medical conditions, plastics to understanding history. Some examples include:

Sustainability in the farming industry. SI, BSU-22-5-BIO
Recognising history and connecting the public to it. SI, UOE-22-20-WALKTALK
Particularly on medical side. SI, UOE-22-19-SHOP

Some also noted that researchers were looking at policy change and were both impressed and surprised universities covered such issues.

Good to hear about research implications for drug policy. SI, UOE-22-21-CITY

Often think of university researchers being part of the 'establishment'. Was good to hear about researchers pushing new ways of thinking and categorising of drugs. SI, UOE-22-21-CITY

## Role of university research in the South West

Nearly all (90%) Public Survey respondents felt the event they attended brought credit to the university running it. Only 8% said it brought little or no credit.

85% of Public Survey respondents said university research was important to the South West region with a further 11% saying it was quite important. The primary reason given focused on its role (and the universities role more generally) in bringing development and skilled work opportunities to the region. This sentiment appears to be stronger in Cornwall where economic deprivation is some of the highest in England.

It brings in a lot of money. It brings a diverse group of people to the SW and it is part of identity, having two universities in Devon!

It is a big part of our economy. We also have really interesting things to learn about e.g. marine park, Plymouth's history and connections around the world.

It inspires young people who are part of its community. And it brings employment / investment opportunities to the region.

Because there is very little else here economically that could grow sustainably.

It supports educating our young people, it allows the educated people to stay in region and it brings people and money to the region.

It would attract great talents and money if we can attract business.

To grow the economy and innovation coming out of the region. To secure a positive and productive future for generations to come.

These responses indicate that there is an awareness of the financial benefits arising from University research, although it was not possible to ascertain whether participants felt more positive about public funding of research, having attended a *FUTURES* event. This aspect would be worthy of further investigation in 2023.

Others focused on the geography of the region and how this connects to sustainable and 'green' research.

Environment/green topics are very relevant and feel proud that it's happening in the region.

Important to be seen to be involved in environmental and biodiversity research to make the World better.

The South West has many unique features which are important to the country as a whole, especially it's geography and marine environments.

To develop the South West in a sustainable way.

There was also appreciation that universities need to connect with the communities they are based in.

I think it's important that universities connect with and share research activities with local communities

And for some, just a general interest in what the region's universities are doing.

Because I want to know more about the area as I'm sure other people do and it is brought to life in these talks

# Research careers

11% of Public Survey respondents said they had a better understanding of research careers as a result of attending an event (See Chart 8 above). Over a quarter (28%) said they would consider a research career themselves and many more (83%) said they would recommend a research career to a friend or family member.

At four events specific questions were about whether attendees thought a career in researcher would be interesting (see example in Figure 2) and if so, would they make a good researcher one day?

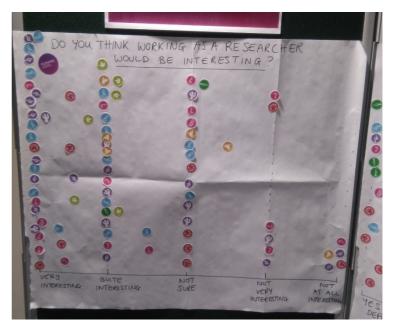


Figure 2: Example of Research Careers sticker vote

The vast majority of respondents were school-aged children and were positive about the prospect of having a career in research (see Table 8). Differences in responses may be due to the different age profiles of those attending the different events. Younger children were observed to feel more positively about becoming a researcher than older children or adults.

	Do you think a career in research would be interesting?			Do you think you could be a good researcher?	
Event	Yes / Very / Quite	Maybe / Not sure	No / Not Very / Not at All	Yes / Yes definitely / Maybe	No / Not sure / Definitely not
UOB Schools Research Fair (AM)	65%	20%	14%	49%	51%
UOB Schools Research Fair (PM)	71%	24%	6%	69%	31%
UOB Up Late	49%	49%	2%	NR	NR
UOE Pop Up Shop	55%	18%	27%	100%	0
Combined	60%	28%	12%	60%	40%

Table 8: Research as a career. (n= 71 school students, n=65 general public)

#### **Further action**

As a result of taking part in *FUTURES 2022* nearly all (92%) said they had discussed ideas from event(s) with friends, colleagues or family who did not attend. Additionally, 39% said they had found out more about the topic or activity covered at the event/s attended. See Chart 10.

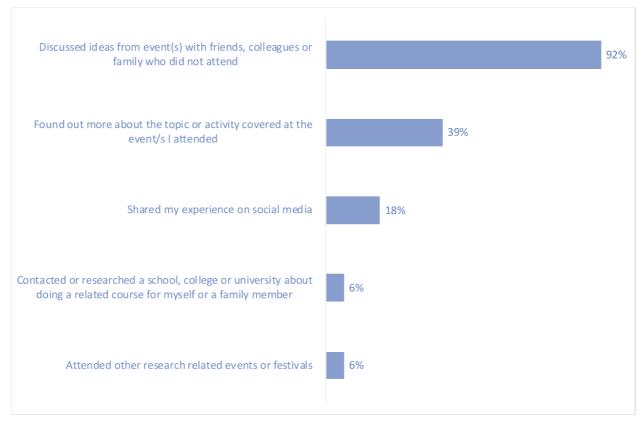


Chart 10: Which of the following have you done as a result of attending FUTURES 2022 events? (n=53 Public Survey)

## 4.2 Impact on researchers

#### Benefits for researchers

Researchers were very positive about their experience to the extent that 95% said they would take part in an event like *FUTURES 2022* again and all bar one said they had benefited from taking part. The most cited benefit for researchers was being able to share their interest and enthusiasm for research (77%), along with improving their communications skills (55%) and trying out new ways of engaging with the public (52%). Researchers also believed they had benefited in many other ways too. See Chart 11.

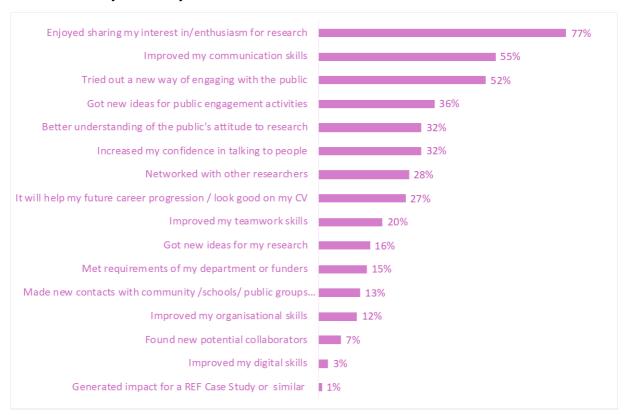


Chart 11: How have you benefited from taking part in FUTURES 2022? (n=75)

Examples of what researchers gained from taking part were given by almost all those responding to the survey, suggesting a wide range of benefits.

#### Training.

Training session before hand was very helpful as I had no outreach experience prior to this event - really well run event, plenty of space for our stand so wasn't too over crowded/cramped.

Talking to and interacting with a diverse public audience.

Being able to engage with young people, including having them on stage with our research team.

Conversations with children and parents about research, being energised by the enthusiasm of participants and the event.

Seeing kids from different socioeconomic backgrounds, especially kids from deprived areas.

The large numbers and variety of very interested families and individuals who visited our stand.

Very diverse audience (great you had been able to organise some buses from some areas of Bristol).

#### Good organisation of the events.

Friendly welcome, easy to organise, cooperative organising team, lovely people, great opportunity to meet with the public to chat about our work and receive their input and feedback, fun day, brilliant music.

I enjoyed the increase in stalls at the up late event, getting onto the SS Great Britain was fantastic. The research fair was also well organised with a good flow of interactions throughout the day.

Really liked the atmosphere and was really impressed by the range of colleagues involved. It all seemed very well organised and it was wonderful to be able to stage the event on the ss Great Britain (which was where our group was stationed).

The fantastic organisation of the event by the Public Engagement team which made it very clear what we needed to deliver, and all the logistics were really easy to understand and seamless, making it much easier for us. The buzz that the team got from preparing for and delivering the stand at the event - we had loads of fun and really enjoyed it.

#### Having public appreciation of their work.

I'm surprised the public are interested our research work and some people showed their appreciation of our work...

Only did the Schools Research Fair but I was amazed at how interested the kids were and how excited they were

## Opportunity to improve their public engagement skills.

Interacting with the public and thinking about how I can present my work in an open and easily understandable way.

#### Having public input into their work.

Kids engaging in thought processes of how they can help to advance research! Little light bulbs.

Lots of engagement from attendees and good turnout to the event. Was very useful for 'user testing' our project.



Figure 3: Researchers reviewing students' comments at the Research Fair

## **Attitudes to Public Engagement**

Taking part in *FUTURES 2022* had a substantial impact on researcher confidence to engage with the public with 64% saying it had made them more confident to some degree. Only one researcher said they felt less confident as a result of participation. See Table 9.

	Much more confident	19%
Table 9: How has taking part in FUTURES 2022 impacted your	A bit more confident	45%
confidence to engage with the	No change in confidence	35%
public? (n=75)	A bit less confident	1%
	A lot less confident	0%

Connected with confidence was the likelihood of researchers wanting to participate in other public engagement activities as a result of their *FUTURES 2022* experience. Again, the response was very positive, with 84% saying they would be more likely to participate in the future as a result. See Table 10.

Table 10: How do you feel about	Much more likely to participate	43%
taking part in other Public	A bit more likely to participate	41%
Engagement activities after your	Not sure	15%
experience at FUTURES 2022?	A bit less likely to participate	0%
(n=75)	A lot less likely to participate	1%

The reason given by the one researcher who said they would be less likely to participate was because their university was not keen on them doing so.

Given this positive approach to public engagement indicated above, it is hardly surprising that nearly all (84%) believe that researchers have a moral duty to engage with the public about the social and ethical implications of their research.

Few (12%) felt that researchers who do a lot of public engagement are not well regarded by other researchers. Indeed, 58% disagreed, although many (30%) felt unable to answer the question.

## 4.3 Impact on institutions, research and the public

# Institutional impact

Although there was some uncertainty among many (27%) about the level of credit *FUTURES* brought to their university, the majority (69%) believed it had done so. See Table 11.

Table 11: To what extent do you feel FUTURES has brought credit to your university? (n=74)	A great deal	35%
	Somewhat	34%
	A little	3%
	Not at all	1%
	Not sure	27%

This had been achieved by:

o Demonstrating who we are and what we do.

Showed the great research we do at UoB.

Led to people who haven't previously engaged with the university to learn more about what we do.

Showed the range of our research, its interest and relevance.

It provides a dissemination platform to highlight the breadth and depth of Bristol's exciting research and the talented individuals behind it. It is also an excellent vehicle for the public to see the 'human' side of research in a stimulating and engaging forum.

Inspiring future researchers.

Hopefully inspired some future scientists!

Kids become aware of science (UoB) projects from early age and this kind of activity might inspire them to pursue HE studies at UoB.

o Demonstrating how public money is spent.

Enables us to show the public what research is being done with publicly funded grants.

o Raising the public profile of the university and making local and community connections.

It's great to get researchers out of their offices being 'seen' in city centres.

Getting the university 'out there' to the public - we are after all a big part of the city of Bristol, but many things are kept behind closed doors!

The University is a big part of the city in Bristol and I think engaging with the local community in a positive way by sharing our research brings credibility for the university to the local community

#### Credit to the research group

As with credit to the university, credit to research groups was for many (32%) hard to gauge. However, over half (51%) of researchers felt *FUTURES 2022* had to some degree brought their research group credit. See Table 12.

	A great deal	27%
Table 12: To what extent do you	Somewhat	24%
feel FUTURES has brought credit	A little	7%
to your Research Group. (n=74)	Not at all	9%
	Not sure	32%

Those who felt their research group had garnered credit felt this had happened because it both raised their profile and demonstrated what they did to both the public and internally.

Allowed us to demonstrate and show the great research we do.

I think it's helped to highlight some of the great people we have in the project and in the BCI more generally. It is good to be proactive in engaging others in our research activities.

New VC [Vice-Chancellor] turned up and spoke to our PI [research group leader].

In our case, the research is part of a joint programme grant with Imperial College London. We are also part of a very large research group in the faculty of engineering. Futures has allowed us to create a truly unique stand beyond anything undertaken at UoB and (as far as we are aware) at ICL. Our stand was also visited by the VC. This has made a real impact locally and raised awareness of our research within our Faculty. It has also shown our creativity to find new ways to engage with the public beyond the norm with colleagues at ICL duplicating our approach for their future outreach events.

## Impact on their research

Two thirds (66%) of researchers agreed that public engagement improves the quality of their research, with just 6% disagreeing. See Table 13.

Table 13: How much do you agree or disagree with the following statementPublic engagement improves the quality of my research. (n=75)	Strongly agree	32%
	Slightly agree	34%
	Neither agree nor disagree	27%
	Slightly disagree	5%
	Strongly disagree	1%

## Perceived impact on the public

Nearly all (91%) researchers in the survey agreed that there was enthusiasm from the public to learn more about research, and none disagreed with this assertion. Additionally, most (72%) did not feel their research was too specialised for public audiences. See Table 14.

Table 14: How much do you	Strongly agree	0%
agree or disagree with the following statement My research is too specialised to make much sense to public	Slightly agree	10%
	Neither agree nor disagree	19%
	Slightly disagree	24%
audiences. (n=75)	Strongly disagree	47%

Most researchers felt the public had benefited from attending *FUTURES 2022* events, ranging from simply having fun to learning about how research can lead to wider benefit and change. Researchers appeared to feel that children in particular benefited from taking part.

Fun, new ideas, new things to think about.

I think they both enjoyed themselves and learnt something around the stands they interacted with.

New knowledge and awareness of composite research and how this is inspired by the world around us to solve the problems of today.

Seeing that research is fun. That it is cool to ask questions. Finally, for one young researcher, bravery and confidence... she was brave to come and watch, then brave to talk to me and then had the confidence to run our experiment. Her mum was in tears when she told me that she never expected her incredibly shy daughter to even step forward let alone talk to me. The mum said, they would both never forget this moment.

Appreciation into what is involved in topics such as climate prediction/modelling Considered our research topic and what it means for them.

Many felt children got a lot out of the events, through discovering new things and inspiring them to think about a future career in research. Some also pointed out how the interaction was mutually beneficial.

I think it was a learning experience for all of us at both the school's fair and researchers' tales in different ways. I think some people had new ideas for their research, others found out about how the public view their research and for some it was a way to give something back by giving young people advice about research careers.

Engaging with science is great, sparks curiosity in children and also brings immense reward to researchers to see those little light bulbs flashing.

Others felt the public gained a better understanding of what researchers do and the value of research to tax payers.

They got to see the human side of a university as some people were a little detached from the thought of higher education. We were able to engage with them with the premise of what the Lab did, in a simplistic way, mainly by engaging them in our short photo and sample quiz!

With children (especially younger ones) they get the awe and wonder element brought into their consciousness. The older ones I think to provoke thought. With the adults correcting their assumptions and showing what their taxes are being spent on.

# 4.4 Impact for partners

Partner feedback suggests a high degree of satisfaction who felt their respective events went well in terms of both quality and quantity of visitor engagement, with few challenges mentioned.

It created a rich visitor experience by bringing soil science to life in a wide variety of ways and facilitating informed dialogue between our visitors and science professionals. The Eden Project, host venue for UOP-22-24-DIRT

In some cases partners did not feel their event had attracted new audiences but others reported participation by those who they had not expected, particularly for those events that had a dropin aspect, attracting passing participation. In the case of the *Gaming Climate Change* online event, some very new participants appear to have become involved.

Event did not attract a different demographic to usual but did include some new players from high level defence and security organisations from across UK, Europe and USA. BSU-22-14-GAMING

For more details of partner feedback see individual event outcomes in Section 6 below.



Figure 4: 'Mr Isambard Kingdom Brunel' meets the University of Bristol's Vice-Chancellor on the SS Great Britain

Several partners highlighted the synergies between the work they do in their venues and the research presented at the *FUTURES* events and commented on how mutually beneficial these kinds of partnerships can be.

We want to work with the university because they are the front end of the research and we want to communicate that with our visitors, so it is really important to have those relationships.

# 5 Improvements and changes

# 5.1 Suggestions from Attendees

Although there were not that many suggestions for changes, there were a few thoughts attendees had as to how events could be improved in general<sup>11</sup> including:

 Greater scope for schools to be involved (this may fall under university outreach rather than public engagement).

A broader collaboration of institutions/Universities and schools, working together - from primary and secondary level throughout the Devon/Cornwall area. PS

Better publicity of events.

Better marketing of event beforehand could have got a bigger audience at a venue which has links to fashion, e.g. Craft Café, Sewing/Fabric Shop, Makers Workshop, or sustainability. OB UOB-22-13-PUB

- Logistics and ergonomics to be better thought through, such as activity heights for children, good sound quality and acoustics, sufficient time for activities.
- Longer event runs rather than just one-off sessions.

Would like there to be another event on similar theme to get more into specifics- a lot to cover in one evening. PS UOE-22-21-CITY

Maybe longer? If it was run on Thursday, she could have brought her school group, or if it was run later hours on weekdays people could come after school/work. PS UOE-22-19-SHOP

Drop in event, got busier later in the day. Possibly try weekend day for more children/families? PS UOP-22-24-DIRT

Sufficient time for audience Q&A.

Would have liked more Q+A time for people to share their experiences. PS UOE-22-21-CITY

 Fairer ticketing to avoid the problem of online booking and no-shows making it hard to book only to find out the event didn't have a capacity audience.

Adult + Child ticket types booking options (not just a single type). More tickets could have been made available to account for no shows. OB BSU-22-29-ISLAND

#### 5.2 Suggestions from Researchers

Researchers suggested a range of possible improvements for forthcoming *FUTURES*. Most suggestions focused on logistics that, if not right, can be very stressful. Things like more time to set up, knowing the amount space that will be available and knowing where to set up were mentioned.

Ability to know exact space in order to plan with kit accordingly.

All the prep and pre-event briefings were great! I think it would be great if groups of children could be kept to about 5, to make it easier to engage them all.

<sup>&</sup>lt;sup>11</sup> Improvements that are event specific are shown in the individual event feedback tables in Section 6.

Allowing more time for set up on the day, so perhaps running the festival on the day when the museum is usually not open to public.

Badges to identify those on stands, larger posters saying which stand is which.

Very short turnaround to get setup especially as we had to wait for tables, cloths and power.

Once set up, some venues were considered very noisy, in part due to over-crowding and at the SS Great Britain, quite poor lighting.

It was extremely noisy in the space. We needed a little more space between stands as there were too many people trying to access stands.

SS Great Britain is a great place, however, inside of the ship, I would say the light is not ideal...

As with some members of the public, some researchers saw benefit in running some of the events over a longer period of time.

I think it would be nice for this event to last longer, especially for the school research fair: why not have it for a few days? Organisation/installation takes time, and I would be happy to welcome more school groups, to give more schools the chance to attend.

During the event ensure researchers are not overwhelmed with visitors and well looked after were mentioned as considerations for future events.

Limit the group size when going round the stands.

Provide more drinks for people talking the whole evening.

After the events, another suggested some kind of informal review meeting or party.

Maybe we could have a celebratory meal/cocktail to talk through our experiences? Maybe a shared video for YouTube, etc?



Figure 5: Researchers looking to the future...

## 5.3 Overall summary

Overall, *FUTURES 2022* exceeded all its targets. Activities engaged tens of thousands more people than was expected, and succeeded in reaching both people who had not attended *FUTURES* before and people from communities that are less likely to have opportunities to interact with university researchers.

Feedback from the public suggests they would attend again too, because *FUTURES* provided enjoyable activities that piqued interests and curiosities, and suggestions for improvement generally indicate a desire for *more* events and activities. Many more researchers took the opportunity to be involved in *FUTURES 2022* than expected, and they also typically reported that they would participate in similar activities in future.

The events successfully showcased university researchers and projects from the whole spectrum of the consortium's research activities to a wide cross-section of the population across the South West of England.

