

FUTURES2021

WP2 Activities report.

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Activities Summary

FUTURES2021 ultimately comprised 36 different activities and events,¹ designed to offer a wide range of people interesting, accessible, and appropriate opportunities to engage with research, and 274 researchers took part. The COVID-19 pandemic created continued uncertainty about the feasibility of large-scale, in-person activities, especially indoors. This resulted in a blended programme, with 26 in-person activities and 10 remote activities. This included events that were delivered online such as talks; written Q and As; social media events; a quiz; and a comedy show, and included activities that were off-line, such as radio shows; research fairs; hands-on experiments; guided walks; and a mural, as well as workshops with local people and schools. This combination of activities and methods of delivery helped to mitigate against digital inequalities and provided varied ways to engage with research. To increase accessibility and inclusivity, all pre-recorded video material had closed captions, and where possible captioning was provided for live video. In total, at least 42,000 people engaged with FUTURES activities. The engagement with individual activities is described in the summary of the FUTURES2021 programme below, and in Table 1: Overview of activities.

Management of activities

Activities were coordinated by the University of Bristol (UoB) and developed in collaboration with the University of Bath (UoBa), the University of Exeter (UoE) the University of Plymouth (UoP), and Bath Spa University (BSU).

The consortium Steering Group met regularly to discuss the development and evolution of the activities. The Steering Group also regularly considered how to respond appropriately to the changing restrictions on activity in response to the COVID-19 pandemic, informed by regular updates from the project manager on the implications of national restrictions and government guidance to universities. The project risk register was regularly updated. The consortium built on the strong collaborative ethos developed in 2020 and all consortium members shared their understandings of how online delivery platforms and other methods could be utilised to provide effective engagement. We exchanged knowledge and ideas about potential solutions to the continued uncertainty created

¹ Some events had more than one session, meaning there were more activity or event sessions in total.

by COVID-19, how activities could be adapted for remote delivery, and useful technology to enable remote engagement.

The FUTURES2021 project manager liaised regularly with staff coordinating activities for each consortium member and ensured appropriate EU Corner activities were delivered in the most effective way possible given the restrictions related to COVID-19. UoB provided consortium members with PowerPoint slides displaying statistics and information that could be used in EU corner activities and UoB and UoBa coordinated to create a poster that highlighted other ERNS for display in EU Corners.

Coordinators were in regular communication with external partners involved in delivering activities. These partners included the S.S. Great Britain in Bristol, 'I'm A Scientist', numerous radio stations, media content creators, and artists and creative practitioners. External advice was sought where appropriate. For example, when developing new activities intended to reach school children UoB received advice from Curiosity Connections, an expert network supporting the promotion of STEM education in primary schools.

Researcher Recruitment

Calls to action to recruit researchers were distributed as widely as possible to reach researchers from all faculties and career stages. At UoB, UoBa, BSU UoE and UoP, calls to action were circulated within university-wide newsletters and networks, through university faculties and research institutes, and through groups like the Bristol Doctoral College. UoB, and UoP approached specific researchers about involvement in specific appropriate events. UoB and UoBa, UoP and UoE also sent direct emails to all participants in previous FUTURES events, and disseminated calls to action using their Public Engagement Team websites, university websites and social media. In addition, UoBa advertised training activities through the Public Engagement Unit webpage, blog, staff homepage and through social media. This helped recruit researchers who were interested in professional development opportunities. UoB circulated calls to action to recruit researchers through the GW4 Alliance, which brings together four of the most research-intensive and innovative universities in the UK: Bath, Bristol, Cardiff and Exeter. Calls to action for specific activities, such as UoB's 'I'm An EU Scientist' activity and UoP's 'Big Regional Family Quiz', were circulated by consortium partners and beneficiaries. Bath Spa sought to recruit researchers for activities organised by other partners, particularly Bath and Bristol (because of their geographical proximity). UoB and UoBA public engagement staff also promoted FUTURES2021 to researchers who they interacted with in their day-to-day work and used their working relationships with research institutes and their knowledge of on-going projects to recruit researchers. UoP utilised the relationships senior professional services staff have with researchers to invite participation, and UoE gave a presentation to Directors of Research so that information about FUTURES2021 could be cascaded. UoB and UoP provided information sessions for researchers to learn more about FUTURES2021 and sign up for activities.

Specific, direct approaches were also made to recruit Marie Skłodowska-Curie Fellows (MSCA Fellows). UoBa contacted MSCA Fellows by email in collaboration with staff from the Research and Innovation Services team and offered an online information session. UoB contacted Bristol's MSCA Fellows and members of Bristol's Innovative Training Networks. UoE made direct approaches to MSCA fellows by email. UoP invited previous MSCA Fellows to take part in A Day in the Life of an EU

Researcher, and EU funded researchers were encouraged to take part in FUTURES2021 through communications from the Innovative Training Network coordinator and UoP's European Structural and Investment Funds Network, and in meetings with the Public Engagement manager and event coordinator. UoB directed the expressions of interest that resulted from the European Commission prompting MSCA Fellows to contact ERN organisers in their host country.

Recruitment calls provided a link to a central consortium-wide Expression of Interest form, managed by UoB. This was an attempt to ease researcher data collection and to enable more inter-university collaboration. This process will be refined if we run further consortium-wide activities. In total, 274 researchers took part in FUTURES2021: 119 from UoB, 24 from UoBa, 54 from UoE, 40 from UoP, 11 from BSU and 26 from 19 other institutions. Of these, 29 were MSCA Fellows and 29 others were receiving European funding; all were supported to take part in all activities and particularly to develop plans for the EU Corners. 51% of the participating researchers were female; 46% were male.²

Across the consortium we worked hard to recruit researchers for FUTURES2021; it proved challenging due to three specific factors:

- 1) The uncertainty about the trajectory of COVID-19 made it difficult to provide certain information about events and made it difficult for researchers to plan activities.
- 2) Some researchers were reluctant to participate in face-to-face activities.
- 3) COVID-19 has created prolonged disruption and workload pressures for university staff. Researchers have had less time and resource available to commit to non-essential activity.

Researcher Support

Each partner offered a range of bespoke support and tailored advice to enable researchers to participate in their FUTURES2021 activities. Where relevant and practical partners extended this support to researchers taking part in other consortium members' activities.

All researchers taking part in UoBa activities were provided 1:1 support by the UoBa Public Engagement Unit. For example, this included reviewing content made for *Nature-Gram* and supporting the writing of 'scripts' for the creation of the video content for *Test Tubes and Time Travel*. UoBa also held a number of 'surgeries' for researchers who were taking part in the activities to get feedback and input on their activities as they were developing them in advance of delivery of the events. Public Engagement Unit staff were also available throughout events to assist with any technical problems and support researchers if they had any questions. All researchers taking part in UoBa activities were able to access the Public Engagement Knowledge Hub, an online set of 8 e-learning resources, covering topics including 'How do I manage my event?' and 'How can I facilitate a workshop?'. They were offered Online Public Engagement training organised and delivered by UoBa, which covered the basics of public engagement and how to create effective activities that engage people with research. UoB, BSU, UoE and UoP researchers were also invited to attend.

All researchers taking part in UoB activities were given the opportunity to discuss and develop their engagement plans with the FUTURES2021 Team and UoB Public Engagement Associates, and were encouraged to attend activity briefings where researchers could share their knowledge, ask questions and trouble-shoot problems. They were also provided with a briefing document for the

² The remainder did not provide this information.

activity/ies they were participating in which explained the aims and structure of the activity and offered suggestions about how they might approach it/engage their audience, as well as how to comply with COVID-19 requirements. All participants in UoB activities were also offered the opportunity to attend ‘Impact through engagement’ training delivered by an external specialist, which explored how to create tailored public engagement based on researchers own skills and the subject of their research. Participants were also offered follow-on 1:1 consultation to explore their own events, ideas and projects. All participants in UoB activities were also offered evaluation training, delivered by an external specialist; this covered the value of evaluation and best evaluation processes, and when, why and how to use evaluation to give reliable and clear data.

All researchers taking part in UoE activities were offered 1:1 support, including the opportunity to discuss and develop their engagement plans with the Agile Rabbit team, and they were signposted to online videos and written guides to help them with public engagement ideas.

The UoP FUTURES team helped researchers to formulate their activity by providing 1:1 guidance, for example, ensuring the talks and workshops delivered at the ‘Seas the day!’ event were accessible, engaging and relevant.

Training and resources specific to particular activities were also offered to participating researchers:

- Participants in UoBa’s Science Showoff received a science comedy training session with Steve Cross, followed by two ‘surgeries’, to help researchers prepare.
- Participants in UoBa’s NatureGram activity received training on how to use the social media platform Instagram for engagement with research purposes. Led by a group of professional Instagram content creators, it covered basics around posting content and how to create engaging video and photo-based content. and covered basics around posting content and how to create engage video and photo-based content with professional Instagram content creators.
- Participants in UoBa’s Reddit AMA events were provided with a briefing explaining how Reddit AMA’s work and giving guidance on how to have productive interactions with Reddit users.
- Participants in UoB’s Discover and Discuss activity and/or Do Try This At Home activity were provided with guidance and templates for developing downloadable resources aimed at Key stage two children. UoB’s Public Engagement Associates also provided extensive 1:1 support to help researchers refine their resources and activity plans. Researchers who were interested in Discover and Discuss or Do Try This At Home were also offered the opportunity to attend training about how to engage young people, their families, and school groups. This was delivered by primary STEM network organisation, Curiosity Connections, run by the Univeristy of the West of England and STEM Ambassadors West of England. The training covered how to make links to the curriculum, safeguarding, and developing engaging activities which can work in person or online. Curiosity Connections provided resources and signposted researchers to other educational curriculum based resources and tips around engagement and participation for school children.
- Participants in UoB’s ‘I’m An EU Scientist’ activity could access resources for researchers via ‘I’m A Scientist’s’ website, <https://imascientist.org.uk/how-it-works-scientists/>. These

resources aimed to help develop communication skills, gain a fresh perspective on your work, and explain what young people think about science.

- Participants in UoB’s Researcher’s Tales were required to attend two days of training with professional storyteller, Clare Murphy, to develop their confidence, speaking skills, and storytelling skills. They also took part in a full rehearsal, supported by the UoB PE team, in the days before the ERN. This was an opportunity to practice delivering their story and receive some feedback.
- UoB researchers interested in taking part in **Research without borders** were invited to a workshop, delivered by an external specialist, on how to develop and produce social-media-friendly content.
- Two groups of UoB doctoral students received training on how to prepare activities for UoB’s research fairs at the S.S. Great Britain. These bespoke two-hour workshops were delivered by UoB Public Engagement Associates.
- Participants in UoP’s “Day in the Life of a Researcher” event were provided with a Filming Guide that explained how to create a polished, professional video and improve the quality of a video, which included tips about light settings and backgrounds; a “Filming Techniques Remotely” Guide on how to use their phone to capture video footage; and a set of questions to structure their talks and ensure a consistent format.
- UoP’s host of The Big Regional Family Quiz, Dr Verity Campbell-Barr, and the speaker for **Lost Childhoods: The Cultural History of Separation**, Professor James Daybell, received 1:1 briefings from the University of Plymouth Events team and the FUTURES team. The Events team ensured researchers were comfortable using Zoom and Kahoot and the FUTURES team ensured they understood the structure of the event how to field questions most effectively.
- UoB, UoE, and UoP provided researchers with the access to assistance to move equipment to and from venues, and all partners ensured specialist technical equipment and resources required were supplied.

Changes to the original programme

Alterations

UoBa’s **FUTURES Science Show** was unable to take place as planned because the original partner – the Global Science Show – was committed to collaborating with another successful ERN event (Intersections). UoBa instead partnered with the Kids Invent Stuff team to deliver the **Kids Invent Stuff: FUTURES Science Show edition**. Kids invent stuff has a substantial YouTube following among children and young people, meaning the intended audience for this activity also changed from young adults to children, families, school children and young people.

Science Showoff was held online because an in-person venue could not be found. It could not be held at the Edge theatre at the University of Bath as had been planned, because the University’s arts centre has been repurposed, and there were no other available venues in the City of Bath due to a surge of bookings by live performance acts as a result of the lifting of COVID-19 restrictions.

Due to a change to the exhibition schedule change at The Box’ museum and art gallery, **Voyage of Discovery** was held at the Market Hall instead. The Market Hall is a new prestige venue with an

immersive dome for screenings. It has a lower overall capacity but is located out of the city centre and in one of UoP's priority areas for community engagement.

The venue for '**How Horticulture Can Help: growing solutions to local & global problems**' changed from the University of Bristol Botanic Garden to the Wills Memorial Building, part of the University of Bristol in the centre of the city. Bristol Botanic Garden did not have a large enough venue to allow for social distancing required due to COVID-19 and the number of people we hoped would attend. The Wills Memorial Building is also in a more central location and so provided a more accessible venue for attendees.

Festival of the Sea was hosted on 25th September instead of 24th September, and over an extended period during the day rather than in the evening. These changes enabled the activities to take place outside to mitigate against COVID-19 transmission.

Writing FUTURES! was originally intended as an online only event but was ultimately run as both an online and in-person event.

The title of '**The Big Talk: Change through Time**' was amended to '**Lost Childhoods: A Cultural History of Separation**' to provide potential audience members with more indication of the content. '**Stand up for Social Enterprise**' remained a showcase of arts research but the title was changed to '**Pandemic Poetry**' to better reflect the researchers recruited and content presented.

The title of '**Adventure Lab**' was changed to '**Test tubes and time travel**' because small scale prototyping and piloting with audiences found this name better reflected the nature of the content.

Walk and Talks: Exeter's multi-coloured history took place on 24th September instead of the 25th. **Walk and Talks: Hidden Exeter** was introduced and concluded by researchers in person but was guided by a mobile phone application.

UoB accepted an offer from the team at I'm A Scientist to run our **I'm an EU Scientist - Get Me Out of Here!** activity for longer than had been originally intended, at no additional cost. This enabled more schools to engage.

UoB decided to run **Discover and Discuss** over a longer time period than had been originally intended, to enable more schools to take part.

UoB decided to run **Do Try This At Home** for longer than had been originally intended, to enable more people to take part.

Additions

The UoBa Public Engagement Unit have been involved in the development and delivery of **RATLab**. RATLab was due to tour schools across the South West and as the audience was a target audience for FUTURES2021 the PEU worked with the partners to secure a date that coincided with European Researchers' Night and used the branded FUTURES material and classroom activities to share the key messages about European funding and research careers with the school children.

UoP added **Stories of Change and Naval History**. Filmed on the vessel HMS Brecon, these research talks had a unique, historical and exciting backdrop of relevance to local people, and shared naval research with the public in Plymouth, many of whom have connections with the Royal Navy and the city's rich naval roots.

UoP extended their EU Corner by including a **'Day in the life'** video. This was screened in the Market Hall venue and featured on YouTube. In the face of uncertainty about how COVID-19 would limit the feasibility and effectiveness of in-person events, making this video and screening it online guaranteed the delivery of an EU Corner.

UoB added the **Connected Europe** padlet to the EU Corner section of the FUTURES website to create an additional opportunity to encourage members of the public to reflect on how research and researchers in the South West are connected to Europe. UoB also used the website to provide access to material from **Research that makes a difference** and **Cabot Conversations** in order to showcase other research that is happening at the university. This provided visitors to the FUTURESTUBE section of the website, where FUTURES-specific video content was hosted, with a wider variety of content and helped researchers to share their research with an additional audience. UoB also added a recording of the **How Horticulture Can Help** talk to this section.

Cancellations

UoB's Research without Borders exhibition did not take place. The original plan was developed to use social media to host the exhibition, as this platform enabled researchers to display content and converse with the public about it. Training was provided to enable researchers to produce high-quality, accessible content. Ultimately, however, too few researchers were available at that time, to be able to run the activity.

UoBa's **EU Busking** did not take place. The planned activity involved EU-funded researchers sharing their research with shoppers at Southgate Shopping Centre in Bath. UoBa planned to move this online as the shopping centre were unable to accommodate the activity due to competition from an income-generating activity, which they had to prioritise. In addition, COVID-19 created uncertainty about the level of foot traffic in Bath city centre and about the safety of encouraging groups to congregate close together. Despite attempts to modify the activity to suit the circumstances, researchers were significantly less interested in an online showcase activity. Ultimately difficulties recruiting researchers and concern that the audience for the intended output would be too limited informed the decision that the impact of this activity in an online form did not justify the time and resource it would require.

FUTURES2021 programme

The Big Regional Family Quiz - Online, Zoom and Kahoot, Families (25 September, 19.00 – 20.00)

The Big Regional Family Quiz involved five researchers, from UoP, UoBA and UoB. Hosted by Dr. Verity Campbell- Barr, Associate Professor in Early Childhood Studies, the evening was filled with a range of brain teasers. Questions tested the audiences' knowledge of the world around us, with mind boggling facts about different research topics, including futuristic robots, prehistoric beasts, how our minds and bodies work, and the wonders of our planet, all inspired by some of the region's most exciting research. 21 people in family teams took part in this family friendly and interactive quiz.



Figure 1: Host, Dr. Verity Campbell- Barr, Associate Professor in Early Childhood Studies

FUTURES on Air – Radio, Adults (Friday 24 and Saturday 25 September, 10:00 – 22:00)

Returning to the airwaves following a successful pilot during FUTURES2020, FUTURES on Air involved working with radio practitioners Stellaria Media and community groups from the three community radio stations. Groups identified topics they were interested in from rewilding, mining heritage, neuroscience and social history and were matched to 10 researchers from across four universities including UoE, UoP, BSU and the University of Cambridge. Working together and using participatory methodologies, researchers and community programme makers co-created a series of six radio shows that explored their shared interest in these topics. A further 10 community radio stations across the South West from the Isles of Scilly to Bristol were part of this project and were FUTURES on Air broadcast partners. FUTURES on Air took research into communities right across the five counties of the South West, and enabled communities to direct discussions about how research connects to issues in their lives. FUTURES on Air programmes are available to listen back to on the FUTURES on Air Mixcloud. Across the 13 stations 17,765 listeners tuned in to hear the shows.



Kids Invent Stuff: FUTURES Science Show Edition – Online, School Children (aged 8-18 years old) and Families (Premiered Friday 24 September)

In collaboration with popular YouTube channel Kids Invent Stuff (49,600 subscribers) we encouraged children and young people to submit incredible invention ideas for the team to create. The team chose one winner, the electricity generating mask invention submitted by 10-year-old Felix, whose idea was then brought to life. The team worked with a researcher at UOBa to incorporate research on batteries and wind turbine design which was then showcased in a film of them testing and creating the invention. The film has received 2,498 views on YouTube and continues to attract views post European Researchers' Night and can be viewed on the Kids Invent Stuff YouTube channel.



NATURE-Gram – Online, Adults (Friday 24 and Saturday 25 September, 10:00 – 22:00)

In collaboration with the Natural History Consortium, Nature-Gram was a programme of engaging content that shared research and lives of researchers on Instagram. Content was created by seven researchers and 10 content creators to engage people aged 18-34. Environmental science researchers were paired with professional Instagram content creators to develop their social media and public engagement skills. Instagram features including Instagram Lives, Comments and Stories allowed researchers to interact directly with users on the platform to discuss their research. 15,112 people (54% female and 43.3% aged 18-34) “liked”, viewed videos and stories and commented on posts.



I'm a Researcher Ask Me Anything – Online, Adults (Friday 24 September, 18:00-19:00)

Users of the r/IAMA Reddit pages were invited to ask researchers questions about their work. Researchers then logged in and spent one hour answering questions and having conversations with Reddit users. The session focussed on biomedical research, specifically developing technology to detect disease. In total five researchers from UOBa engaged with 836 Reddit users.

Writing Futures! - Live online and live in-person, Adults and Children, [20 - 24 September]

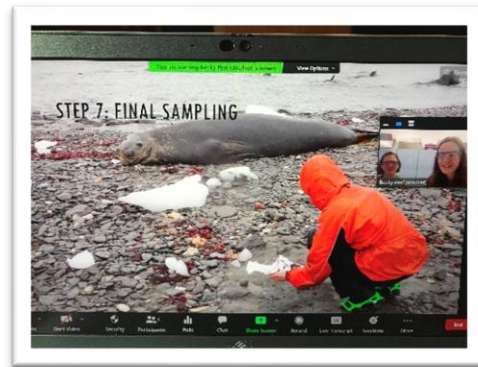
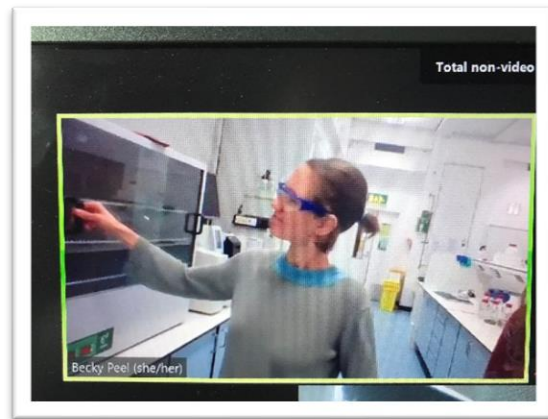
Writing Futures! was an online and face-to-face set of writing workshops for school children and families in Corsham. Writing tasks embedded the pedagogy of Dare to Write? and The Writer's Cycle, developed by lead researcher, Professor Bambo Soyinka from BSU. This evidence-based methodology gave children an opportunity to explore their imagination and take an active community-based approach to learning. The participants were inspired by two books: *Shadow* by Lucy Christopher and *The Wilderness War* by Julia Green. On-line zoom workshops and readings in classrooms and the local library, facilitated by the storyteller, enabled children to work together to write, edit and revise their stories. The writing workshops culminated in an exhibition of illustrations and written work displayed in the library as part of StoryTown, a month-long community story celebration across Corsham Town. Students who took part in the workshops also had an opportunity to submit their work for the national Arts Award qualification. A total of 8 schools, 829 children and adults took part in Writing Futures!

I'm an EU Scientist - Get Me Out of Here! – Online, School Children (24 September – 15 October)

Schools from across the South West were given the opportunity to participate in online chats and Q&As with researchers, asking questions about their research, what it's like to work in research and what the future might hold. 14 scientists and technicians from seven institutions working in a range of fields including animal physiology, chemical synthesis and conservation created profiles on the portal, and nine were chosen by schools to participate in live chats on the I'm An EU Scientist platform. Children voted for a winner, who received a £500 prize to conduct further public engagement work. The nine live chats were attended by 131 students, and four teachers, from four schools.

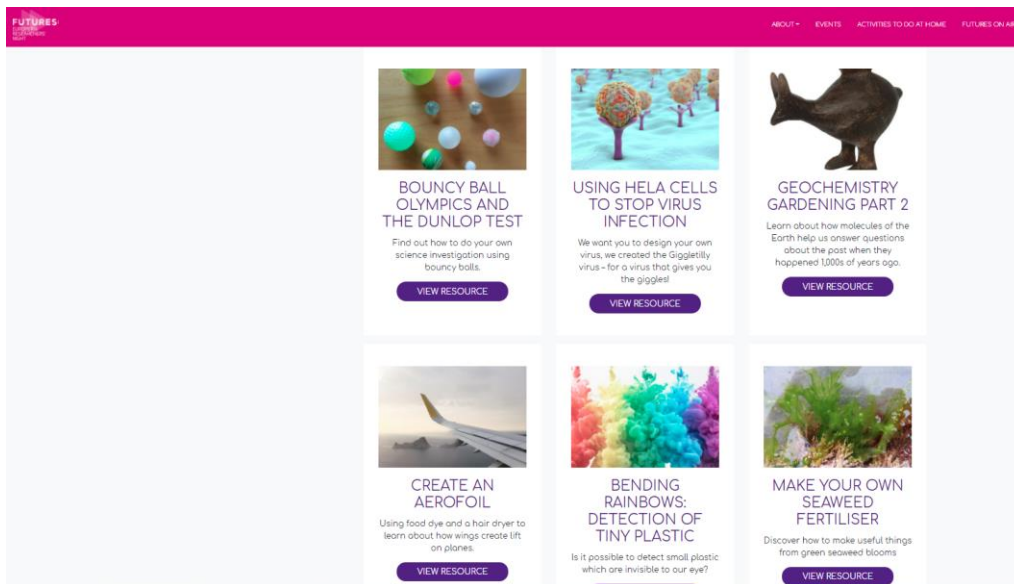
Discover and Discuss – Online, School Children in schools where there is a low uptake of higher education (17 September – 15 October)

Discover and Discuss enabled school children to complete STEAM activities as a group, with the support of their classroom teacher, and then meet the person behind the research and ask them questions about their research. Activity sheets designed by researchers, and associated resources and consumables, were sent to schools to complete. This was followed up with a webchat with the researcher. The webchats provided an opportunity for the researcher to discuss the activity and to answer questions about how and why they became a researcher and what it is like to be a researcher, with the aim of breaking down some of the stereotypical images of who researchers are. The resources covered a range of topics including aerodynamics, energy, food production and science and environment. Sessions were delivered via Zoom by five researchers, from consortium partners including UoB and UoBa, with MSC Fellows at University of Cambridge and University of London. Five Key Stage Two classes (ages 8-11) with a total of 162 children from two disadvantaged schools took part.



Do Try This At Home - Online, Children, (17 September – 15 October)

Building on the success of this activity in 2020, Do Try This at Home was expanded this year to incorporate more researchers from across the consortium and beyond. Researchers created Activity sheets about their research topics that adults could download from the FUTURES2021 website and do at home with children using everyday household items. There was also an option to download an activity completion certificate to present to children. The activity was promoted on forums for parents, particularly those who are home-schooling their children, and via Curiosity Connections and the Children’s University. FUTURES2021 was recognised as a Children’s University learning destination (childrensuniversity.co.uk) and any child completing an activity could gain credits towards their learning journey. 22 resources were available to download. They were created by 35 researchers from UoB; BSU; City, University of London; and the Universities of Aston, Warwick, Aberystwyth, and Cambridge. The resources were downloaded a total of 197 times.



Research Fair – S.S. Great Britain, School Children (24 September 10.00 - 14:30)

The Schools Research Fair took place over two sessions (10.00-12:00 and 13:00-14.30). Interactive stalls covered a variety of research areas, including superconductivity and levitating trains, health, food and what it might become in the future, methane and its production by cows, the impact of volcanic ash plumes and how poo relates to climate change. Children met researchers and explored the impact of cutting-edge research across science, engineering, social sciences and humanities through hands-on activities. The pupils also explored a range of STEAM careers and meet role models, with researchers from a range of backgrounds taking part. As in 2019, schools from low socio-economic backgrounds and in areas with low uptake of higher education were prioritised and were offered free coach transport. 47 researchers on 10 stalls engaged with 84 primary age school children. Visitors also engaged with the five stalls in the EU Corner (further details below).



Up Late - S.S. Great Britain, Families (24 September 18:00 – 21:00)

FUTURES2021 “took over” the grounds of Isambard Kingdom Brunel’s historic ship, the S.S. Great Britain. Families could visit for free (normally S.S. G.B. costs £48 for a family) and take part in a host of fun and interactive activities and hands-on demonstrations and discover how Brunel’s legacy

helped us to understand the way we live today. Families received a map to follow a trail which led them through different areas of the S.S. G.B. grounds, through the Being Brunel Museum, the Dry Dock and the Virador Theatre. 46 researchers from UoB, UoBa and BSU were based at 13 stands amongst the maritime exhibits and immersive historical environment. These stands used various novel approaches, including using dance to explain blood flow and the heart beat, using hip-hop to learn about particle physics, and exploring dinosaurs using fossils and hands-on activities, Visitors could also attend Researchers Tales in the Library and the Discovery Talks in the Great Eastern Hall. The evening was attended by a diverse range of local families, particularly those with younger children, young people and adults attending with friends. 240 people attended.



Researchers' Tales @Up Late – S.S. Great Britain, Families (24 September 18:00 – 21:00)

Six researchers, compered by a professional performer, performed short stories in the intimate atmosphere of the immersive library in the grounds of the S.S. Great Britain for visitors to discover the people behind the research. The researchers from UoB and UoBa work in Life Science, Medical, Biological Science and Biochemistry. Their stories had been developed during two-days of training with professional storyteller Clare Murphy. The stories explained their research and their lives as researchers to help break stereotypes. 69 people attended.



Discovery Talks – S.S. Great Britain, Adults (24 September 18:00 – 21:00 and 25 September 12:00 – 16:15)

‘Stories of Change’ showcased history, research and innovation through a programme of discovery talks that explored how research in Bristol affects our understandings of the past and will affect our lives in the future. The programme included speakers and chairs from the Bristol Doctoral College, a

home for 3000 PhD students, and from various research institutes from UoB, including the Elizabeth Blackwell Institute for Health Research and the Cabot Institute for the Environment. Seven public talks featured researchers from the Arts, Humanities and STEM. A total of 16 researchers gave talks to 117 people across two days. The talks featured were:

- **Healthy Humans.** Panel discussion, looking at how research is improving detection and treatment of diabetes, cancer and heart disease.
- **Our digital future in-the-making.** Panel discussion, The Bristol Digital Futures Institute.
- **Future Oceans, Future Food.** Panel discussion, on how research is helping tackle environmental challenges.
- **Bridging Histories: 6 steps from Colston.** Talk about how Bridging Histories can help you learn about your city and create positive change for the future.
- **Is evolution still working?** Talk about how humans confront the challenges of the natural world and developments in genomics and genome editing.
- **Culture, Meaning and Exclusion.** A lyrical exploration of UK Drill Music, how Black culture[s] are portrayed, how Black cultural artforms are policed, what is deemed acceptable within the public consciousness and why.
- **Grief and Creativity in Literature and Art.** Talk about the relationship between bereavement and creativity and the role of the imagination in the grieving process.



How Horticulture Can Help: growing solutions to local & global problems, (Wills Memorial Building, University of Bristol) Adults and General Public (25 September 14:00 – 16:00)

This keynote talk and panel discussion, delivered in collaboration with the UoB Botanic Garden, featured researchers from Life Sciences and the Botanic Garden. The keynote lecture was given by Professor Nigel Dunnnett, internationally renowned plantsman and Professor of Planting Design and Urban Horticulture at the University of Sheffield. The lecture was followed by panel discussion with Professor Jane Memmott OBE Hon. FRES, Dr Heather Whitney, and Dr Daniela Dietrich on the role of horticulture in growing solutions to local and global problems. A question and answer session resulted in discussion of whether some of the major issues facing people and the planet can be addressed through horticulture. The event was aimed at adults and those with an interest in

horticulture; a total of 73 people attended. The event was filmed and received 27 views online after the event.



Researching Change through Poetry Translation – Online, Adults (24 September 13:00 - 14:00)

This interactive online workshop hosted by the UoBs' Bristol Poetry Institute offered participants a chance to discover more about the relationship between moments of cultural (ex)change and upheaval. Two researchers from UoB's Department of Modern Languages acted as workshop leads assisting attendees through a series of breakout rooms to try their hand at producing translations of German and Spanish poetry. This online hands-on interactive approach worked well compared to a lecture style session as it gave individuals a unique perspective to systematising translation approaches. A total of 16 people attended.

Test Tubes and Time Travel – Bath city centre, Families and Adults (24 and 25 September, 10:00-19:00)

Test Tubes and Time Travel is an immersive location-based digital theatrical walking tour of the City of Bath led by award-winning theatre company, Kilter. Participants went on a 'choose your own adventure' tour using innovative app-based technology on their smart phones. They were taken across to the city to visit locations to discover the stories behind Bath's historic scientific pioneers and met three contemporary scientists and engineers from UoBA working on some of the big issues

in society today such as vaccine production, sustainable building development and technology to detect cancer. 136 people went on the walk.



Screenshots from a Test Tubes and Time Travel films participants watch during the walk

Science Showoff presents: Never Explain – Adults (24 September, 20:00-21:00)

Never Explain is a brand-new science comedy variety show developed for online audiences that pits researchers against each other in pursuit of points. Following the success of Never Explain at FUTURES2020, we developed a FUTURES2021 edition which included running a training session for researchers and hosting the show live on YouTube. Users were able to interact directly as a live audience with the host and researchers through the onscreen comments. Four researchers from King’s College London, University of West of England and the University of Oxford participated in the activity, expanding the reach of FUTURES2021 to new online audiences. 80 people tuned into the YouTube broadcast and a 110 in total have viewed the show since 24 September.



Screenshot from Science Showoff presents: Never Explain

Run with a Researcher – Adults (25 September, 09:00-10:30)

Researchers from UoBAs’ Department for Health joined runners at the weekly Bath Skyline Park Run. As well as participating in the five-kilometre run, two researchers shared their research on energy balance and (endurance) sports performance informally with runners offering insights into how to improve their performance. 226 people engaged with researchers over the course of the event.

Pop-Up Curiosity Shop of Science and Culture – Make Tank, Exeter, Families, young people and adults, (25 September 2021, 10:00-16:00)

The public were able to visit a research fair and talks in a pop-up shop in the centre of Exeter, where young and old were able to enjoy hands-on activities, play games, listen to music and hear talks. Researchers and artists from a range of backgrounds and disciplines talked to visitors about their research/art, life, and career as scientists and artists. 311 people visited the pop-up shop which had

a variety of demonstrations by 32 researchers from UoE. At the EU Corner, artist Steve McCracken together with one researcher created a mural in the shop window. This was viewed by around 1,000 passers-by on the way to and from Exeter's main Bus Station.



Walk and Talks: Exeter's Multi-coloured History – Exeter city centre, adults (24 September 2021, 10:00 – 12:00)

Ghee Bowman, from the Centre for Imperial and Global History at UoE, led this guided walk across Exeter and through the city's 2000-year history. The participants had the opportunity to hear insights into everything from history and botany to climate change and biodiversity. The walk specifically focused on Exeter's diverse historical occupants: the Romans, Saxons, Normans, Jews, 'Aliens', Africans, visitors and migrants who have enriched the city. 30 people attended the walking tour.

Walk and Talks: Hidden Exeter - Exeter, 16+ adults, older people, rural communities, (25 September 2021, 12:00 – 14:00)

Three researchers from UoE's Art History and Visual Culture department developed the city's first app-guided walk. Participants enjoyed a self-paced walk through the city's rich past, linking the sites to stories from their own lives and times. Researchers guided participants on how to use the app at the beginning of the walk and participants were provided with supplementary resources. 19 people completed the walks.



Festival of the Sea – Marine Theatre, Lyme Regis, Families, young people, rural communities, older people, (25 September 2021, 14:00 – 21:00.)

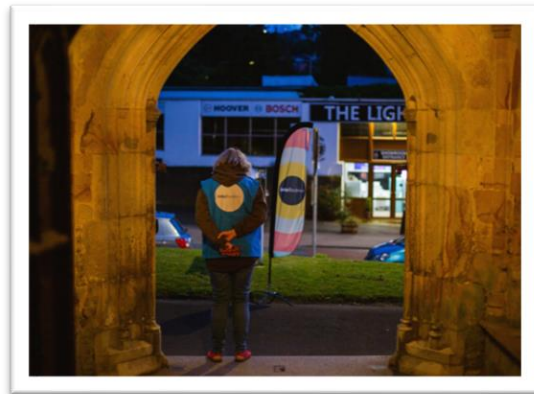
The festival was a unique opportunity for the local community to meet scientists and artists and discuss local issues with them and learn about cutting-edge science. Participants enjoyed a day of dance and music, alongside workshops, talks, films and demonstrations from UoE researchers, local artists and fishermen. Aspects of the marine environment, which is critical to our health and

wellbeing, were explored and audiences gained better understanding of how scientists work collaboratively with industry, policymakers, and conservation agencies to deliver innovative solutions to real world problems. The festival was attended by 407 people and showcased the work of 10 UoE researchers.



Creative responses to Climate Change with intoBodmin – St Petroc’s Church, Bodmin, Adults (25 September 2021, 19:30 – 22:00)

The event, hosted by intoBodmin at St Petroc’s Church, Bodmin, featured a short film produced by a local activist, featuring several local scientists and entrepreneurs discussing the effects of climate change in local ecosystems and potential solutions to the issues. The effects of climate change and the importance of the collaborative communication of research were then discussed in a panel with UoE researchers and local artists. Participants had the opportunity to discuss the film with its producer, and ask their questions to the scientists and the artists. This was followed by a short concert. Four UoE researchers were on the panel, and the event was attended by 65 people, of a wide range of ages, mostly local residents but some traveling from different parts of Cornwall and Devon.



Voyage of discovery – Market Hall, Plymouth, Families (25 September, 10:00 – 17:00)

Visitors to Voyage of Discovery joined 17 historians, scientists and environmentalists from UoP at the Market Hall, a world-class space for digital innovation and learning situated in the heart of Devonport in Plymouth. Visitors uncovered the immersive world of science, technology and art in this interactive showcase, meeting the experts behind the research with hands-on activities, talks and demonstrations in the incredible 15 metre immersive theatre, the Dome, to learn more about robotics, history, the environment and even dentistry. The Dome is the first of its kind in Europe and

enabled us to offer experiences at the cutting edge of immersive technology. The event was suitable for families and a general audience of all ages with an interest in how virtual reality can bring history to life, and what video games have to do with the environment. 192 visitors took part in the activities including immersive dome screenings throughout the day.



Seas the day! – National Marine Aquarium, Plymouth, Families (25 September, 10:00 – 15:00)

Seas the Day took place at the National Marine Aquarium in Plymouth, the UK's largest aquarium. The aquarium is run by the Ocean Conservation Trust, a charity dedicated to connecting people with the ocean. World-leading experts from UoP's Marine Institute explored one of the global challenges facing our planet: how to protect our seas. In the morning the attendees had the opportunity to hear three UoP scientists share their expertise on issues of maritime plastics and climate change in a collection of live talks. In the afternoon the attendees engaged with scientists and artists through hands-on activities to explore the marine environment and better understand its importance and the challenges it faces. The event was suitable for people of all ages with an interest in learning how to protect our coastal environment through participating in engaging workshops. Attendees were invited to take part in a competition to make artwork from ordinary plastic, have a go at being the best litter picker in a timed litter pick and test the buoyancy of plastics. 86 people attended the event.



Lost Childhoods: The Cultural History of Separation – online, adults (24 September, 19.00 – 20:30)

James Daybell, Professor of Early Modern British History at UoP, writer, and co-presenter of the chart-topping Histories of the Unexpected podcast, presented Lost Childhoods: The Cultural History of Separation. James gave some context to his research and work in what is a controversial and challenging topic in our history, before airing a pre-recorded lecture that took our audience on a fascinating journey through various periods in history where children have found themselves separated from families through the choices of others and how that has affected individuals and cultures. The lecture was followed by a live Q&A. The live event was delivered on Zoom and the audience had the ability to interact via Chat. The talk was also featured on the UoP YouTube channel and the FUTURES2021 website. 153 people watched the talk in total; 86 took part in the live event and 67 viewed the event recording.



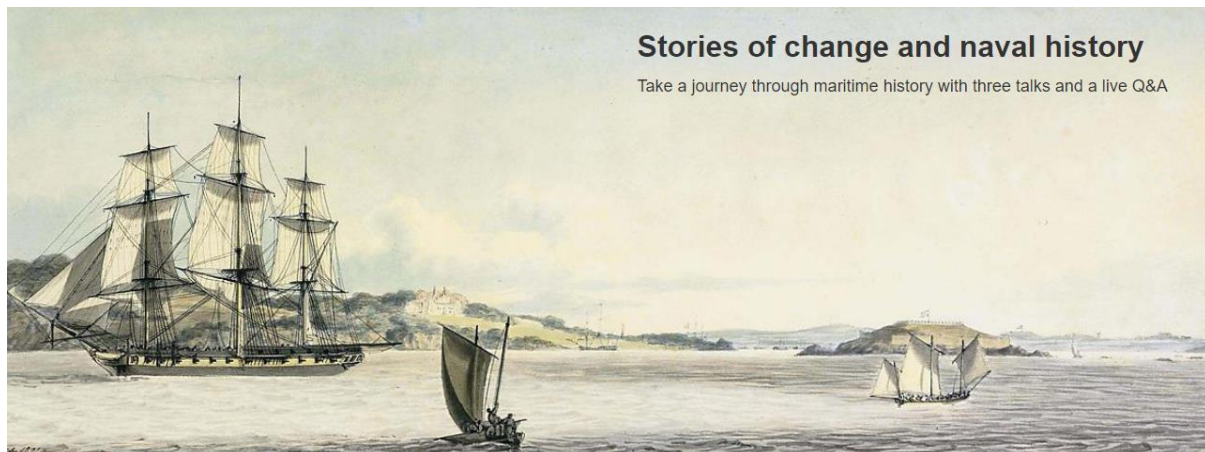
Pandemic Poetry – Bread and Roses pub, Plymouth, adults (25 September, 17.00 – 18.00)

Pandemic Poetry took place at the Bread & Roses public house in Plymouth. Bread and Roses is Plymouth's only social enterprise pub and operates as a community-focused hub and arts space. Professor Anthony Caleshu, together with two writers from UoP, talked about how poetry has been read and written during the ongoing pandemic, where it has provided inspiration, solace, and a way for people around the world to interact during periods of lockdown. 35 people attended. Poetry and Covid project is funded by Arts and Humanities Research Council and aims to investigate the use of poetry as a mode of discourse during the pandemic. Professor Antony Caleshu and his team have developed an interactive website where members of public submit work to be published as well as to comment upon each other's work while taking part in discussions and Q&A (to find out more about the project please visit <https://poetryandcovid.com/>).



Stories of Change and Naval History – online, adults, (25 September, 10.00 – 11:00)

Stories of Change and Naval History was an online event that included the screening of three pre-recorded talks about the impact of the First World War on the Royal Navy; the development of ideas of internationalism in the United States Navy; and the impact of the British Civil Wars of the 1640s on the development of the Royal Navy. This was followed by a live discussion and Q&A with three UoP researchers. The live event was delivered on Zoom where the audience had the ability to interact via Chat. The recorded talks were also featured on the UoP and FUTURES YouTube channels. 33 adults attended the live event online and 44 people watched the talks via YouTube.



RATLab – School Children (aged 8-18 years old) and Teachers (Friday 24 September, 09:00-14:30)

Created collaboratively by engineers from the UoBA’s Department of Mechanical Engineering and theatre company Green Ginger, the Research And Test Lab (RATLab) was an interactive show about

biomechanics. A team of extraordinary engineers, who just happen to be rats, invited primary school children from Midsomer Norton Primary School into the RATLab where they found out about cutting-edge medical science and engineering and, using puppetry, helped rugby sports star Ronnie get back to the playing field after a terrible injury. This immersive show used music, theatre and puppetry to engage pupils in learning more about bones, the mechanics of how their bodies move and how engineers might be able to fix them when they go wrong. Following the show four engineers from the UoBA worked with pupils in the classroom on a collaborative engineering challenge. 213 pupils and eight teachers took part in RATLab.



RATLab performance and classroom workshops

Cabot Conversations – Online, adults (24 & 25 September)

A collection of videos featuring conversations and collaborations between artists and 10 researchers working on the climate emergency, produced by UoB’s Cabot Institute and published on their YouTube channel, were made available to FUTURES audiences via the FUTURES website. They were viewed 140 times during the counting period.

Research that makes a difference– Online, adults (24 & 25 September)

A collection of 10 “lightening talk” videos produced by UoB researchers and submitted to the “Research that makes a difference” competition as part of the Festival of Early Career Research were made available to FUTURES audiences via the FUTURES website. The final of the competition coincided with FUTURES. They were viewed 42 times during the counting period.

EU Corner Activities

EU Corner Bristol @ Research Fair + Up Late - S.S. Great Britain, Families (Friday 24 September 10:00 – 14:30 and 18:00 – 21:00)

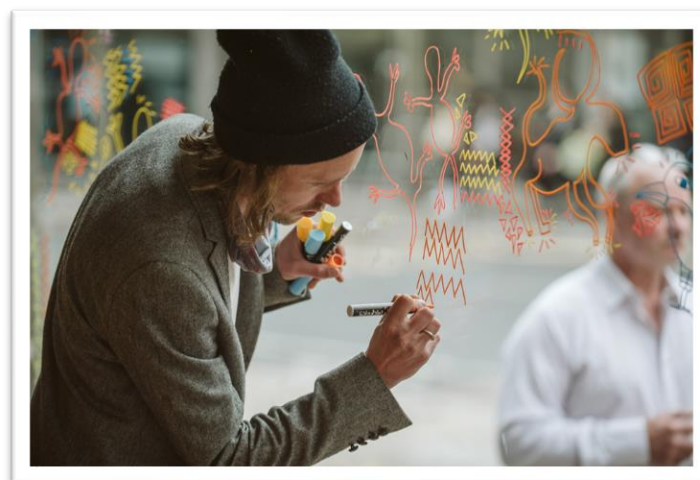
EU Corners were located at UoB’s Research Fair and Up Late event at S.S. G.B. Interactive stalls at the fairs featured the EU flag, ERN pop-up banners, hands on activities, connections to relevant EU websites and information about European research funding. Researchers represented a range of Faculties and Departments including, Life Sciences, Engineering, School of Biological Sciences, and English Literature. Researchers discussed European Commission-funded projects and the European

Commission's role in research and innovation. Topics included bridges in seismic areas, mechanical testing of composite materials, evolutionary biology and thermal heat transference. 284 people visited these stalls which were run by seven MSCA Fellows researchers.



EU Corner Exeter - Make Tank, Exeter (25 September, 10:00 – 16:00)

At the UoE EU Corner artist Steve McCracken created a mural on the window of the Pop-Up Curiosity Shop. McCracken collaborated with Jose Iriarte, an EU-funded archaeologist and archaeobotanist, to ensure the mural reflected and communicated his research. While McCracken created the mural Iriarte spoke to members of the public and held a talk and discussion. The mural was viewed by approximately 1,000 people passing by on the way to and from Exeter's main Bus Station.



EU Corner Plymouth - The Market Hall, Young people and general audience (25 September, 10:00-17:00)

EU funded researchers from UoP showcased their projects on topics including big data, wave power generation, video gaming, oral health, applying digital tools to research in psychology and digital heritage through live demonstrations, discussions and screenings of recorded Day in the Life videos. Audience members had a glimpse into the daily activities of UoP researchers and their tips on pursuing a career in research. 192 people interacted with 10 researchers.



EU Corner: Connected Europe – Online, adults (24 & 25 September)

Researchers and the public were invited to view and contribute to an online Padlet accessed through the EU Corner section of the FUTURES website. This easy-to-use, free platform is accessible to everyone through an internet browser. The padlet presented the flags of, and basic information about, every European country. Researchers added posts that explained their connections to these places, whether through their research or their lives. Visitors to the padlet could read others' posts and create their own, to encourage viewers to consider their own connections to Europe. The page was visited 87 times.

EU Corner Plymouth: Day In the Life videos, Online (24 – 25 September)

6 UoP researchers featured in "Day in the Life of a Researcher" videos which were shared using the UoP and FUTURES YouTube channels, as well as being shown at the Voyage of Discovery event. The videos received 42 views online.



Table 1: Overview of activities

Activity	Venue	Attendance
The Big Regional Family Quiz	<i>Online</i>	21
FUTURES on Air	<i>Radio</i>	17765
The FUTURES Science Show (Kids Invent Stuff)	<i>Online</i>	2498
Nature-gram	<i>Online</i>	15112
Ask me Anything	<i>Online</i>	836
Writing Futures!	<i>Online and in-person (schools and libraries, Bath)</i>	829
I'm an EU Scientist - Get Me Out of Here!	<i>Online</i>	135
Discover and Discuss	<i>Online</i>	162
Do Try This At Home	<i>Online</i>	197
Research Fair	<i>S.S. Great Britain, Bristol.</i>	84
Up Late	<i>S.S. Great Britain, Bristol.</i>	240
Researchers' Tales - Up Late	<i>S.S. Great Britain, Bristol.</i>	69
Discovery Talks	<i>S.S. Great Britain, Bristol.</i>	117
How Horticulture can Help: growing solutions to local & global problems	<i>University of Bristol.</i>	73
Researching Change through Poetry Translation	<i>Online</i>	16
Test Tubes and Time Travel	<i>Bath city centre</i>	136
Science Showoff	<i>Online</i>	110
Run with a Researcher	<i>Bath</i>	226
Pop-Up Curiosity Shop of Science and Culture	<i>Make Tank, Exeter</i>	311
Walk and Talks: Hidden Exeter	<i>Exeter</i>	19
Festival of the Sea	<i>Marine Theatre, Lyme Regis</i>	407
Creative responses to Climate Change with intoBodmin	<i>Petroc Church, Bodmin</i>	65

A Voyage of Discovery	<i>Market Hall, Plymouth</i>	192
Seas the Day!	<i>National Marine Aquarium, Plymouth</i>	86
Lost Childhoods: A Cultural History of Separation	<i>Online</i>	153
Pandemic Poetry	<i>Bread and Roses Pub, Plymouth</i>	35
EU Corner Bristol - Research Fair + Up Late	<i>S.S. Great Britain, Bristol.</i>	284
EU Corner Exeter - Pop-Up Curiosity Shop Mural	<i>Make Tank, Exeter</i>	1000
EU Corner Plymouth - The Market Hall	<i>Market Hall, Plymouth</i>	192
Walk and Talks: Exeter's Multi-coloured History	<i>Exeter</i>	30
Stories of Change and Naval History	<i>Online</i>	77
RATLab	<i>Midsomer Naughton Primary School</i>	213
EU Corner - European Discovery Map "Connected Europe"	<i>Online</i>	87
Cabot Conversations	<i>Online</i>	140
Research that makes a difference	<i>Online</i>	42
EU Corner Plymouth - Day In Life videos	<i>Online</i>	42