

# Polar Horizons:

## *A how-to guide to cohort-based engagement with underrepresented talent*

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### Background

Polar Horizons began as part of a series of activities within the [Diversity in UK Polar Science Initiative](#) that marked the 200th anniversary of the discovery of Antarctica. Conceived and funded by the [UK Foreign, Commonwealth and Development Office Polar Regions Department](#), this initiative celebrates existing diversity, and takes an important step forward to promote and enhance Antarctic science opportunities to under-represented groups, including women, people from ethnic minorities, BAME, LGBTQ+ communities and people with a disability.

### Why do we need Polar Horizons?

Polar research is vital to the future of all people on Earth, however, polar science and the organisations that facilitate polar research do not reflect the makeup of the wider societies that they represent. This lack of diversity and representation can be seen across a range of characteristics including gender, age, race, ethnicity, sexual orientation, disability and socioeconomic background. Although the nature of this imbalance will vary between organisations, research disciplines and nations, addressing these issues will benefit polar research as a whole. An important aspect of the solution entails attracting and retaining diverse talent at an early career stage by dispelling the stereotypes associated with the history of Polar Research.

### What is Polar Horizons?

Polar Horizons is a programme designed to inspire STEM (Science, Technology, Engineering and Mathematics) students and early career researchers (ECRs) from a diverse and underrepresented range of backgrounds to take up a career in polar research. The programme achieves this by immersing the ECRs in an intensive and varied overview of polar research whilst also pairing them with established polar researchers from their field of study, to enable more detailed discussions and career advice. The scheme is different to an internship because it brings the ECRs in as a cohort who undertake many of the activities as a group, enabling them to build a peer-support network in addition to the network they develop with their host researcher and institute.

The programme is an excellent way for the hosts researchers and institutes to reach a largely untapped pool of talent, with diverse experience and ideas, as future applicants for jobs or studentships. The ECRs in turn are exposed to the reality of polar research and how it differs from the heroic myths and popular stereotypes. Furthermore, it should be noted that there is an expected added impact from bringing a group of new and diverse ECRs into an organisation where their characteristics are otherwise underrepresented. This *physical*

*presence* can stimulate *impact* on an individual level through interactions with established staff, and indirectly lead to changes in the organisational landscape.<sup>1</sup>

In other words, when we refer to *Polar Horizons*, we are talking about a *cohort-based engagement programme*, which in a different context might take on a different name and focus.

## Who is Polar Horizons for?

The target audience for any Polar Horizons will depend on the makeup of the organisation or community involved and the imbalances that they wish to address. The original UK Polar Horizons targeted ethnic minorities, the LGBTQ+ community and people with disabilities because they were all significantly underrepresented in [UK polar research](#). The programme includes pairing of ECRs and established polar researchers, so the engagement of the wider polar community is key. Without the buy-in of these hosts the programme is not viable. Feedback from previous hosts suggests that they benefited from the scheme as much as the ECRs did, leading to an increase in job satisfaction and understanding of the issues involved.

## How do you run a Polar Horizons?

### The Organising Committee:

The organisers of any Polar Horizons programme need to be aware of the issues surrounding the minorities that they wish to engage. Ideally the committee should include members of those minorities or have consulted trusted groups for advice regarding how to approach these issues.

### Communication:

Good and clear communication are key to the success of the programme, there should be clear instructions, points of contact and timetables for all activities. Clearly state the aims, expectations and requirements of the scheme from the outset.

### Matchmaking:

Organisers need to ensure a wide uptake of the programme from both ECRs and hosts. ECRs can be reached using a combination of social media, universities, word of mouth, and recruitment and networking websites. Hosts can be contacted through similar channels as well as national polar operators, national SCAR committees and other professional networks.

ECRs and hosts are matched based upon their fields of research and Polar Horizons can be compared to research matchmaking or scientific speed dating. In order to find most beneficial pairings it is vital to gather the correct information in advance. This information can

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<sup>1</sup> An online programme cannot necessarily produce similar effects, as people get less visibility and contact behind zoom screens.

be sensitive and legally protected, so organisers must ensure that they adhere to data protection rules and regulations. As well as collating data on the underrepresented characteristics it is vital to collect information on the scientific or research interests and level of academic qualifications of the ECRs. This data is then used to match the candidates to the most suitable established polar researcher. In addition to the potential host's area of expertise, organisers can ask them if they are interested in meeting ECRs from a different, but complimentary field of research (e.g. an ecologist paired up with an ECR computational biologist or statistician), which could make for an interesting and fruitful pairing.

It is likely that not all suitable applicants will be matched to a host due to overdemand. These unmatched ECRs can still benefit from the Polar Horizons programme by being invited to participate in the group sessions of the launch and the ongoing virtual seminar series, enabling sharing of general information and of the vital cohort experience.

### Creating a Safe Space:

The aim of Polar Horizons is to encourage members of minorities and underrepresented groups to feel that they have a place in polar research. This can only be achieved if they feel that they are free to express themselves in a safe and supportive environment. It is vital that the organisers set this tone from the inception of the project and reinforce this message throughout the programme. Introducing the organising committee from the outset as supportive allies and sharing personal experiences with the ECRs can build trust and rapport, whilst being careful not to put pressure on individuals to share more than they are comfortable with. It is good practice to establish ground rules for both ECRs and hosts regarding the expected behaviours and acceptable language related to the underrepresented groups. The UK Polar Horizons did this by running a session on "An introduction to working with underrepresented groups and minorities" for all participants on the first morning of the launch week.

### The Launch:

The launch is an immersive experience (virtual or in person) which introduces the general themes of polar research from logistics to space weather or artificial intelligence to living and working in the deep field. The experience should include a mixture of talks, videos and discussion, with plenty of time for questions from the ECRs. The ECRs should be welcomed by senior members of the research community to ensure that they know that their participation is valued and taken seriously. The talks and presentations should be pitched at a non-expert audience, cover a varied range of subjects and not go on too long because the ECRs will not be specialists in polar research. The ECRs should be given ample opportunities to socialise with each other (including breakout rooms or virtual social spaces if running the launch online) in order to bond as a cohort. The timetable of the launch days should also include slots for the ECRs to meet their hosts.

Ideally the launch should be conducted as an in person event as this increases engagement and commitment from the participants and hosts. It also plays an important role in physically bringing diversity into the polar research workplace and allowing the host and ECR to bond. Bringing all the ECRs together in one location with a shared experience also helps them bond as a cohort and network. Where an in person launch is not possible (e.g. due to

COVID-19, limited funding, long distance travel or the lack of a centralised polar focused institute), a hybrid or fully online launch is possible and has the advantages of being far less expensive, less time consuming to organise and providing a larger capacity to include more ECR or hosts from different institutions.

### Beyond the Launch:

Once the launch days are over it is important to get feedback from the ECRs and hosts about how the programme worked or didn't work for them. We recommend continuing the programme for ten to twelve months by organising a series of (at least) monthly talks and discussion sessions to continue the themes of Polar Horizons. The organisers could engage with the ECRs to help organise the speakers. This will ensure that the speakers are of interest to the ECRs, encourage them to research more polar topics and will give them valuable experience that can be added to their list of skills. These online seminars can be longer than the quickfire talks of the launch, going into more detail and allowing more time for questions and discussion at the end. Another way to ensure that the cohort bonds as a network, organisers can encourage the use of social networks or chat apps to communicate.

### Lessons Learned

Polar Horizons 2020 was an in-person event hosted by British Antarctic Survey in Cambridge, UK, that was forced to move online after the first day due to the COVID-19 pandemic, whereas Polar Horizons 2021 has been completely virtual. Running it as a virtual event has allowed a larger cohort of ECRs (63 paired students compared to 22), a wider range and geographic spread of host institutes (9 institutes instead of 1), and significantly reduced the cost of running the programme (no funding required for travel, hotel and subsistence). However, virtual events do not bring the ERCs into the physical work environment or allow them to fully experience a day in the life of a polar researcher. Social activities such as eating meals together during and after the launch and other opportunities for the ECRs to bond are also lost.

### Measuring Success

The true impact of Polar Horizons may take years to bear fruit but the immediate feedback from the ECRs and high retention rate for the first 10 month seminar series give reasons to be optimistic for the future. Different methods of impact assessment should be considered including feedback forms and focus groups, as used in Polar Horizons 2021.

Below are some examples of what the ECRs had to say about Polar Horizons 2021:

"It's been an energizing and affirming experience!"

"A fantastic and informative experience where I felt welcomed and positive about being disabled"

"I now realise that I am able to make a difference and my sexual identity and disabilities are a positive tool to do so. It's refreshing to be part of a scheme that aims to destigmatise polar research and input diversity and inclusivity."

"I haven't experienced such a welcoming and supportive group of people before from one organisation and have nothing but good things to say about all the BAS staff I've had contact with. I've learned a huge amount this week - far beyond my expectations!"

"I have learnt so much about the diversity of Polar research this week. I am now coming away with a clear picture of how to start a career in polar research and some great contacts to do this!"

"Hearing from polar scientists and professionals who've come from such diverse and indirect backgrounds has really helped me to see a future for myself in polar science. As a member of the LGBTQ+ community, Polar Horizons has also helped me to realise that I'm not alone in my endeavours."

### Appendix 1 - High-level project timeline as used by Polar Horizons 2021:

T-5 months	Confirm project dates and gain signoff
T-4 months	Confirm programme structure and communications plan
T-3 months	Launch application process for both students and hosts
T-2 months	Follow up communications plan, target potential hosts
T-7 weeks	Commence discussions with invited guests and speakers
T-6 weeks	Close application process
T-5 weeks	Confirm applicant details and commence matching with hosts
T-4 weeks	Continue matching applicants and hosts
T-3 weeks	Seek additional hosts as required
T-2 weeks	Finalise and confirm all matches
T-1 week	Introduction emails between matched students and hosts
T-1 week	Finalise zoom sessions and invitations
T-1 day	Confirm speakers and schedule
Launch Day	

### Appendix 2 - Key project tasks as used by Polar Horizons 2021:

1. Select suitable dates for the programme - taking into account University holidays, exams and other significant meetings or deadlines
2. Booking of any physical locations - if required
3. Develop a communications plan - including social media, web pages and email
4. Create online application forms for students and host researchers

5. Get permission to use and store personal data from all involved - e.g. GDPR compliant
6. Invite potential guests and speakers for the launch of the programme
7. Schedule speakers around their availability
8. Confirm schedule with speakers - including location or video conferencing links
9. Invite local Polar community, STEM minority groups and networks to the launch day
10. Filter applicants to ensure that they meet the required criteria - academic qualifications, minority group status etc in line with aims of the scheme
11. Match applicants with hosts based upon areas of expertise or research interests
12. Undertake targeted requests to teams or departments if lacking hosts for certain research disciplines
13. Confirm matched pairings, confirm by email and request acknowledgment and understanding from both parties
14. Establish regular Webinar and discussion sessions to continue the programme into the future
15. Confirm project scope and expectations with matched pairings
16. Establish website resources for students
17. Communicate with unsuccessful applicants and invite to the talks and open sessions
18. Communicate with all participants regarding schedule for the program, 'Launch Day and seminar days'
19. Record launch day sessions and webinars for the resource web page

### Appendix 3 - Example launch schedule for Polar Horizons 2021:

POLAR HORIZONS PROGRAM 2021				
MONDAY 1st March	TUESDAY 2nd MARCH	WEDNESDAY 3rd MARCH	THURSDAY 4th MARCH	FRIDAY 5th MARCH
<p>EACH SESSION NUMBER LINKS TO ZOOM. SIMPLY <b>CLICK ON THE SESSION YOU WANT TO JOIN</b> AND ZOOM SHOULD LAUNCH IN YOUR BROWSER.</p>  <p>18:00-20:00 VOLUNTARY Icebreaker meeting on Gathertown</p>	<p><b>SESSION 1</b></p> <p>09:00-10:40 LAUNCH MORNING Welcome by polar research institutions and universities</p>	<p><b>SESSION 4</b></p> <p>09:00-10:30 Arctic highlights</p>	<p><b>SESSION 7</b></p> <p>09:00-10:30 Environment, logistics &amp; committees in polar operations</p>	<p><b>CREATIVE TUITION:</b> Community focus groups (each student/ECR will only participate in one slot)</p> <p><u>Register for one focus group.</u> <u>Eventbrite password: Polar Horizons2021</u></p>
	10:40 - 11:00 BREAK	10:30 - 11:00 BREAK	10:30 - 11:00 BREAK	
	<p><b>SESSION 2</b></p> <p>11:00-12:00 Introductions</p>	<p><b>SESSION 5</b></p> <p>11:00-11:30 Artificial Intelligence and polar research</p>	<p><b>SESSION 8</b></p> <p>11:00-11:30 UK Polar Horizons 2020 alumni &amp; science highlight</p>	
	12:00-13:00 Potential host and student 1:1	11:30-12:30 Potential host and student 1:1	11:30 - 12:30 Potential host and student 1:1	<p><u>09:00-10:30</u></p> <p><u>10:45-12:15</u></p>
	13:00 - 13:45 BREAK	13:10 - 13:45 BREAK	12:45 - 13:30 BREAK	<p><u>12:30 - 14:00</u></p> <p><u>14:15 - 15:45</u></p> <p><u>16:00 - 17:30</u></p>
	<p><b>SESSION 3</b></p> <p>13:45 - 15:30 Antarctic highlights</p>	<p><b>SESSION 6</b></p> <p>13:45 - 15:30 Funding and Polar communities</p>	<p><b>SESSION 9</b></p> <p>13:30-15:30 Feedback, closing the program &amp; what's next</p>	
	15:30 CLOSE	15:30 CLOSE	15:30 CLOSE	

## Appendix 4 - Equality, Diversity and Inclusion (EDI) 101 training:

The EDI101 training is a valuable tool for setting the ground rules for engaging with individuals from marginalised groups or minorities. This training deck is a conversation starter, and is meant to encourage open dialogue and further learning.

[EDI 101 training slides](#)



# An introduction to working with underrepresented groups and minorities



DIVERSITY  
IN UK POLAR SCIENCE

IF YOU ARE AN EXTERNAL COLLABORATOR INTERESTED IN USING THESE SLIDES, PLEASE EMAIL US AT [INCLUSION@BAS.AC.UK](mailto:INCLUSION@BAS.AC.UK)



## Appendix 5 - Polar Horizons 2021 alumni during the launch week in March 2021:

