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22

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Annual Impact Report



# Contents

**1.**  
Letter  
from  
Director  
P 4 — 5

2021 at a Glance  
P 6 — 7

**2.**

Building  
Resilience  
P 10 — 13

**4.**

**7.**  
Equitable  
Practice  
P 20

**5.** Diversification  
of Audiences  
P 14 — 17

Partners **8.**  
P 23

**3.**  
What we do  
P 8 — 9

Operational  
Evolution  
P 18 — 19

**6.**

**9.**  
Directors  
and Trustees  
P 24



# Letter from Director

*I was introduced to all the opportunities a STEM career can offer me by Stemettes and I saw how enjoyable and fulfilling a STEM career can be. I have listened to the stories of so many women in STEM and learned about how their passion has led to a successful and fulfilling career. This has influenced me to pursue a STEM pathway.*

Nisa Anwer – former Stemettes mentee.

Where a new year is normally associated with new beginnings, 2021 didn't feel fully new. In the midst of an ongoing pandemic Stemettes continued virtual provisions and support of our communities.

An established rhythm of half-term Explore sessions, Summer Outbox sessions and on-demand support via The Stemette Society had to be reinforced to ensure that the impact of the previous year was sustained and built upon – across the 12 months we provided nearly 6,000 Stemette experiences to young people. An additional newsletter for Parents and Guardians provided some much needed reassurance for another of our growing communities. Science, Technology, Engineering, Arts and Maths really are for all.

We've seen our young women and non-binary people demonstrate resilience – gained across various Stemettes interventions and beyond – in a way that society can only be proud of and hope to learn from. Our young people are an inspiration to me, the rest of TeamStemette and our volunteers and partners. They really are worthy of respect, celebration and awe.

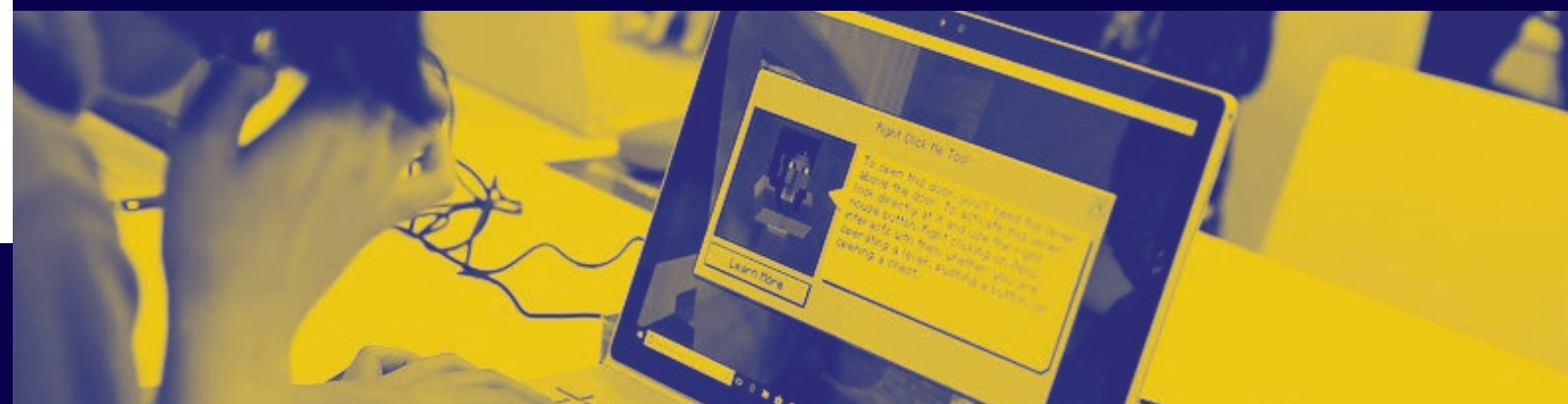


In 2021, we completed a final year as an Informal STEM Community Partner of the four-year 'YESTEM' research project. We were one of a handful of community STEM organisations to work with the Wellcome Trust & National Science Foundation funded collaboration between the Institute of Education at UCL and the Institute for Learning Innovation at Oregon State University. The opportunity enabled us to reflect on how our unique practice and approach to Informal Science Learning is equitable and promotes youth justice. More on this can be found later in the report.

Across the four years, we've learnt so much more about the youth-centric approach at Stemettes, allowing young people to engage with STEM and STEAM in a way that ensures they are recognised for all they bring to the table. In these times of uncertainty, our partners have been able to trust in us and continue their support (thank you!) assured by our connection to future innovators no matter where they are – from Dublin to Caernarfon, Paisley to Hull.

As we look ahead to our ten-year anniversary, we're excited to share what has happened in times like these. We're excited that our organisation has evolved, our values are clearly established and a 2024 strategy has been drawn up. **We're most excited though, about how the world will change as today's Stemettes become tomorrow's leaders. Here's to 2022!**

Anne-Marie Ineflon  
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## MISSION

**Engage, inform and connect** the next generation of women and non-binary people into Science, Technology, Engineering, Arts and Maths (STEAM) by showcasing a diversity of people working in STEAM.

## VISION

All young women and non-binary people can make informed decisions about careers in STEAM, so that they can be proportionally represented in the field.

## VALUES

### Respect

We are intentionally inclusive

### Youth-centred

Our beneficiaries' voices are central to everything we do

### Future-focused

We engage, inform and connect our young people today so that they can become our future leaders in STEAM

### Joy

We strive to create happiness, wellbeing, authenticity and a safe environment

### Supportive

We recognise that it will take all of us, working together, to achieve our vision

# 2021 at a Glance

## Scaling up, not powering down

Increased the  
number and frequency  
of interventions

**5,701**

impactful experiences  
delivered across 2021

Almost **3** times more  
interventions than  
last year



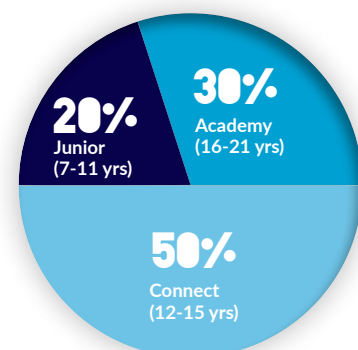
but working with a  
large number of people

**135**

young people received a formal  
certification in either **Python**,  
**Cybersecurity** or **ICAgile**

Volunteers helped run  
Stemettes events

**330**



Most  
participants  
were 12-15  
years old

**248**

young people went  
through a four-month-long  
mentoring programme

**60%**

were from underrepresented  
ethnic backgrounds

Still keeping  
participants engaged

Based on feedback from mentees,  
mentoring programmes had  
long-term impact:

**66%**

gained  
extra STEM  
opportunities

**73%**

planned to  
keep in touch with  
their STEM mentors

After attending Stemettes programmes,  
268 girls and non-binary folks joined The  
Stemettes Society in 2021

while having a  
powerful impact

Stemettes programmes had the  
biggest impact on participants'  
networks and confidence

### Perception



**17%** increase in how participants  
see the STEM field.

### Awareness



**21%** increase in  
understanding of STEM  
career options.

### Network



**53%** increase in  
connections  
to peers & role  
models in STEM.

### Confidence



**30%** increase in confidence in  
STEM abilities.

### Knowledge



**27%** increase in STEM  
knowledge.

**60%**

of Stemettes alumni  
are now working in the  
STEM field at 26 years  
and above.

# Stemettes Interventions

Stemettes interventions are targeted at girls, young women and non-binary people aged between 5 to 25 years old, with some content targeting Parents & Guardians or Teachers/Career Leaders. Split into three categories; **Content**, **Events** and **Cohorts**, Beneficiaries' journeys are designed to start at the least intensive or foundational level (Content) and move through interventions into the higher-intensity (Cohort) levels.

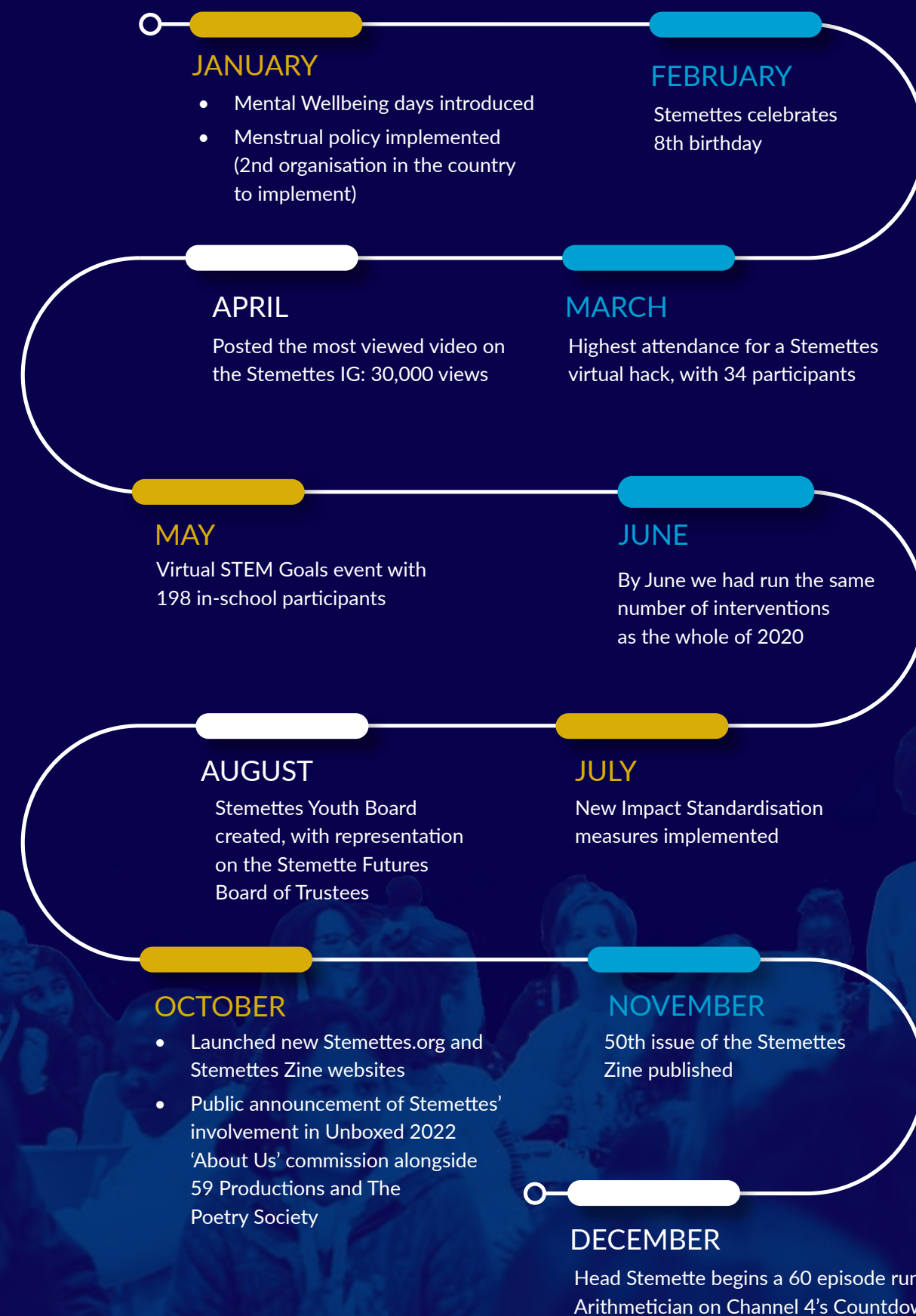
**Cohorts** are Stemettes' long-term interventions, running from one month to a year. The same group of beneficiaries progress through the intervention together. Throughout cohort interventions, young people have the opportunity to engage with STEM & STEAM role models and gain a deeper insight into the field. Ideal for older beneficiaries looking to make first career steps into STEM, or younger ones wanting to deep dive into STEAM in a fun and relaxed environment. **\*Includes\*** Mentoring, Skills Academies and School Clubs.

**Events** are Stemettes' short-term interventions, lasting one hour to one week. These interventions aim to have a wider reach than cohorts, offering a high number of places and, in 2021, were ran virtually. Events aim to connect young people with their peers and STEM role models, get creative in short activities or gain a general overview of different STEAM fields. **\*Includes\*** Panels, Hackathons and School Summits.



**Content** is Stemettes' most accessible intervention, referring to all social media channels, the Stemettes Zine, newsletters, and a closed social network called The Stemettes Society. With the broadest reach, they are available on-demand, 24 hours a day, globally. Offering support, advice and profiles aimed at young people, parents, teachers and influencers.

# 2021 Highlights





# Strengthening Resilience in the Next Generation

Stemettes interventions are designed to build resilience of participants through improving their perception and knowledge of STEM, awareness of STEM careers, confidence in their STEM abilities and expanding their networks within the STEM field. **All of these increased for most participants after attending one intervention.**

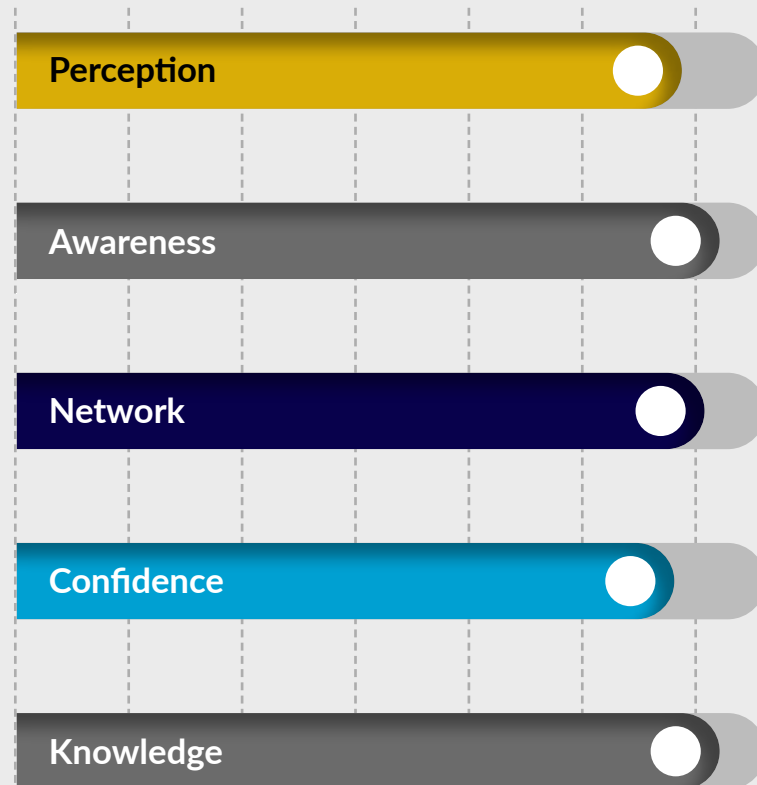
**88%** now see the STEM field in a better light.

**93%** better understand STEM career options.

**91%** now feel better connected to peers & role models in STEM.

**87%** now feel more confident in their STEM abilities.

**93%** gained new STEM knowledge.



## YOUTH-CENTRED



## Stemettes' Events...

**“** I love talking to people, but I am awful at just picking up the phone and calling my friends. This is why I love Stemettes events! They help me keep in contact with people which really improves my mental health!”  
Teenage Stemettes

Supported mental wellbeing in

**62%**  
of participants

Participants particularly enjoyed:

- Talking to role models
- Asking questions during the networking sessions
- Working in groups creating projects
- Getting to know other participants

Stemettes Cohorts

increased mentees' self-confidence by

**38%**



Improved participants' core skills, particularly:

- CV writing
- Networking
- Time management
- Interviewing

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## Equipping for the future

Through numerous interventions, Stemettes aims to provide folks with long-lasting resources, connections and skills. By equipping beneficiaries in earlier years, Stemettes aims to provide underrepresented young people in STEM the necessary tools to overcome challenges and forge their own pathways.

Lasting impact

Those who had already been to a Stemettes event are better equipped than those who are new, proving the impact of the interventions:

Stemettes alumni have a

**12%** higher perception of STEM and network in STEM fields compared to new participants.

**“** I knew that I always had a passion for STEM but not exactly which career. STEM is still something I want to study and I want to go into a STEM career. February Explore has opened my mind to all the different career paths I can take.”  
Teenage Stemettes

# Sana's Story



**Nine-year-old Sana joined Stemettes in 2018 after her mother signed her up for one of Stemettes' popular hackathons. Over the past three years, she has attended over ten events and even hosted a session at one of Stemettes' largest events, Outbox, over the summer.**



*When I attended my first hackathon, I wasn't sure what to do. I went from table to table, seeing what the older girls were up to. The first one was like dipping my toe in the water."*

She then attended a range of physical hackathons, pandemic STEM Mode In sessions, and enjoyed taking part in a session on How AI works with Bank of America Merrill Lynch. She fondly recalled meeting Head Stemette Dr Anne-Marie Imafidon at the Stemettes Turns 7! event:



*I feel whenever you get involved with an organisation and you have the chance to meet the brains behind it, it makes such a difference to your experience."*

Sana says the reason she returns to Stemettes, is because of the encouraging environment created by the team.

She is a STEAM enthusiast as she loves to express herself artistically. During Outbox 2021, she offered to run a downtime session to teach other girls to draw anime characters.



*I always like to give myself opportunities... What I've learned from Stemettes is that any job can be STEM-related. If you delve into it and go for it, you can do it."*

On her involvement with Stemettes, Sana said that she enjoys the chance to be more closely involved.



*It's a real honour for me to help other girls with STEM. When the Stemettes get in touch to ask for help, I love it."*

Sana's name has been changed to protect her identity.



## “FUTURE-FOCUSED”

*It's supportive and the people are kind. I love that whenever they teach you about a subject, they always add something extra. For example, when I was learning about astrophysics at Outbox 2021, we not only learnt about science, but nature too. We learned about tardigrades (microscopic eight-legged animals that have been to outer space).”*

# Diversification of Audiences

## Championing inclusivity

Stemettes actively works to reach the most underrepresented groups within STEM fields. In 2021, Stemettes’ commitment to intersectionality continued in the provision of more inclusive opportunities than ever before.

Stemettes ensures participation for those from across low-income households, who are recipients of Free School Meals, who are state-school educated, and/or have parents who did not attend tertiary education or are employed in STEM. Through specific targeting, Stemettes has provided life-changing exposure to STEM to folks who would otherwise have reduced opportunity or means.

### Pronouns

She/Her/Hers	96.96%
Prefer not to share	1.46%
They/Them/Theirs	1.32%
Ze/Hir	0.26%

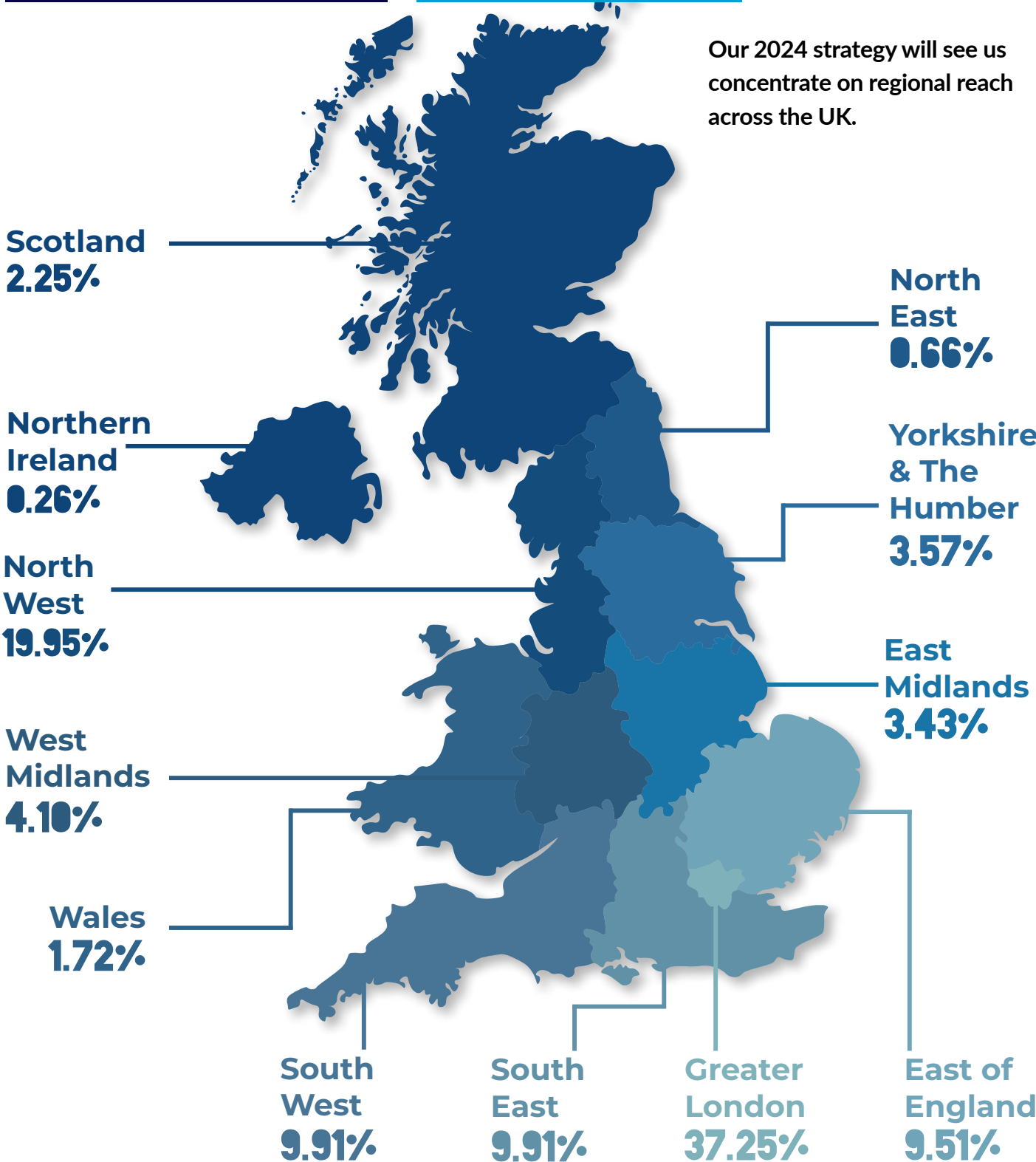
Stemettes is increasing accessibility and representation in the next generation of STEM & STEAM.

Out of all Stemettes attendees:

21%	were/are eligible to free meals
32%	whose parents did not attend university
50%	have parents who do not work in STEM

### Ethnicity

White British	39.97%
Asian or Asian British	29.48%
Black or Black British	20.99%
Mixed heritage	7.10%
Arab or Arab British	2.47%





# Cultivating Supportive Environments

Stemettes understand that members of underrepresented groups are likely to face greater challenges in accessing and engaging in STEM opportunities.

In particular, being the first generation within a family to go to university or pursue a career in STEM may mean that navigating the various pathways can be confusing and intimidating.

In response to this, Stemettes took action in 2021 to diversify their offer to include interventions for parents and teachers, in order to better equip them to support their young Stemettes on their STEM journey. By fostering supportive and informed communities outside of the Stemettes interventions, Stemettes aim to increase young people's engagement and confidence within STEM spaces and communities.

Alongside expanding offerings to teachers and parents, in 2021 Stemettes continued to grow its volunteer base; engaging a diverse group of individuals from across the STEM fields. Through volunteer-led interventions, Stemettes is able to showcase current STEM talent and inspire the next generation of STEM.

## Volunteering with Stemettes

Improved the network of  
**62%** of them

Made **65%**  
more likely to stay  
in the industry for at  
least another year

Left **92%** of them inspired

“

*Thank you for the great organisation. The instructions were clear and simple and the platform worked well on the day. It was a positive experience because of this and the great engagement from the participants.”*  
Stemettes volunteer

## Parents and Teachers of Stemettes

To grow supportive communities around beneficiaries, Stemettes launched a newsletter, issued monthly, for Parents, Guardians, Teachers/Career Leaders of young Stemettes.

The newsletters contain information about upcoming events and programmes, jobs boards and any Stemettes content relevant to parents and teachers to drive up engagement and give them tailored useful information.

**100%** of parents find the content of the newsletter useful



### What are Parents saying about Stemettes' newsletter?

“

*Knowing about the upcoming workshops and events has been incredibly helpful as I have been able to register/apply for my child to take part. The newsletter is one that I certainly look forward to receiving! It's very reader friendly, the format and length is also very good. It has the right info covered explaining what Stemettes is and how it benefits those who join. Keep up the great work!”*

“

*I can't over-emphasise how receiving this newsletter has positively impacted my kids' education in STEM. We have family meetings at the end of each month and discuss various fields of STEM and the brain storming sessions kind of ignite a lot of interest in the kids.”*

# SUPPORTIVE



# Operational Evolution

1

An increase and evolution in delivery for our communities has meant growth and evolution in TeamStemettes.

This evolution has centred on supporting and safeguarding the holistic wellbeing of our staff with policies, opportunities and transparency. Here are just a few of the measures we have in place as a responsible employer.

## Menstrual Leave Policy

We as an organisation recognise that menstruation is not a sickness and want to support our team in managing their cycles. Our policy covers the entire menstruator life-cycle, inclusive of the menopause. We consider health and wellbeing of the utmost importance and offer unlimited paid leave to employees who have requirements relating to their menstrual cycle.

This policy saw instant gratification from our employees and we have already attracted new talent as a result of implementing this necessary support.

2

## Wellbeing Days

As each lockdown restriction was announced, we responded internally with Wellbeing Days to support the mental health of our team. Wellbeing Days meant one day of paid leave for every ten days worked, to ensure staff could rest and recoup, spend time in nature or focus on themselves with our company subscription to a mental wellbeing support app. A new reflective framework was introduced across staff 1:1s and we also introduced Team Sanctuary time & Buddy time. One hour was scheduled each week to focus on team joy – with a range of activities from craft to games, music to fun competitions. With an additional 30 minutes to get to know other team members informally. As the pandemic response evolves, these offerings will evolve too.

3

## Enhanced Employer Pension Contribution Scheme

In order to best support our team financially now and into the future we have increased

our pension contributions to employees, now matching up to 8%. Further support and learning resources are planned for 2022 to give employees the knowledge and understanding around workplace pensions.

4

## Flexible Working Policy

2021 saw us make significant improvements in our flexible working policy. Employees are now provided with home office equipment and can continue to manage their own work pattern which we have found beneficial in supporting those team members with family commitments. In 2022 we'll be joining the Four Day Work Week pilot.

5

## Training Budget

This year we have increased our training budget and formally introduced the employees' personal learning and development annual allowance. This allocation of funds has given our employees more control over their own career development and brought into focus the importance of growth as an individual and within the organisation.

6

## Hybrid Working Cycles

A combination of team growth and the embracing of a hybrid working model has meant that standardisation of internal processes and systems has been very important. We have established a

quarterly OKR team day, in-person, for the team to reflect on progress and be aligned on our objectives at a company, team and individual level. We have also leant more on existing collaboration tools to communicate across flexible working schedules and a geographically dispersed team.

7

## Impact Standardisation

The switch to virtual delivery meant a significant shift in the ways we were able to collect impact data and track beneficiaries. We received some funding to upgrade internal technology infrastructure and continue work to embed standardisation across our intervention streams.

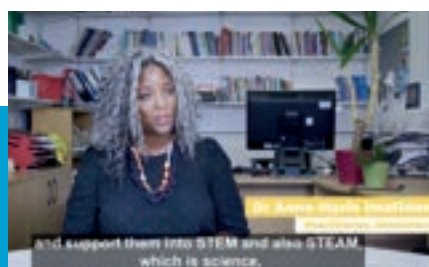
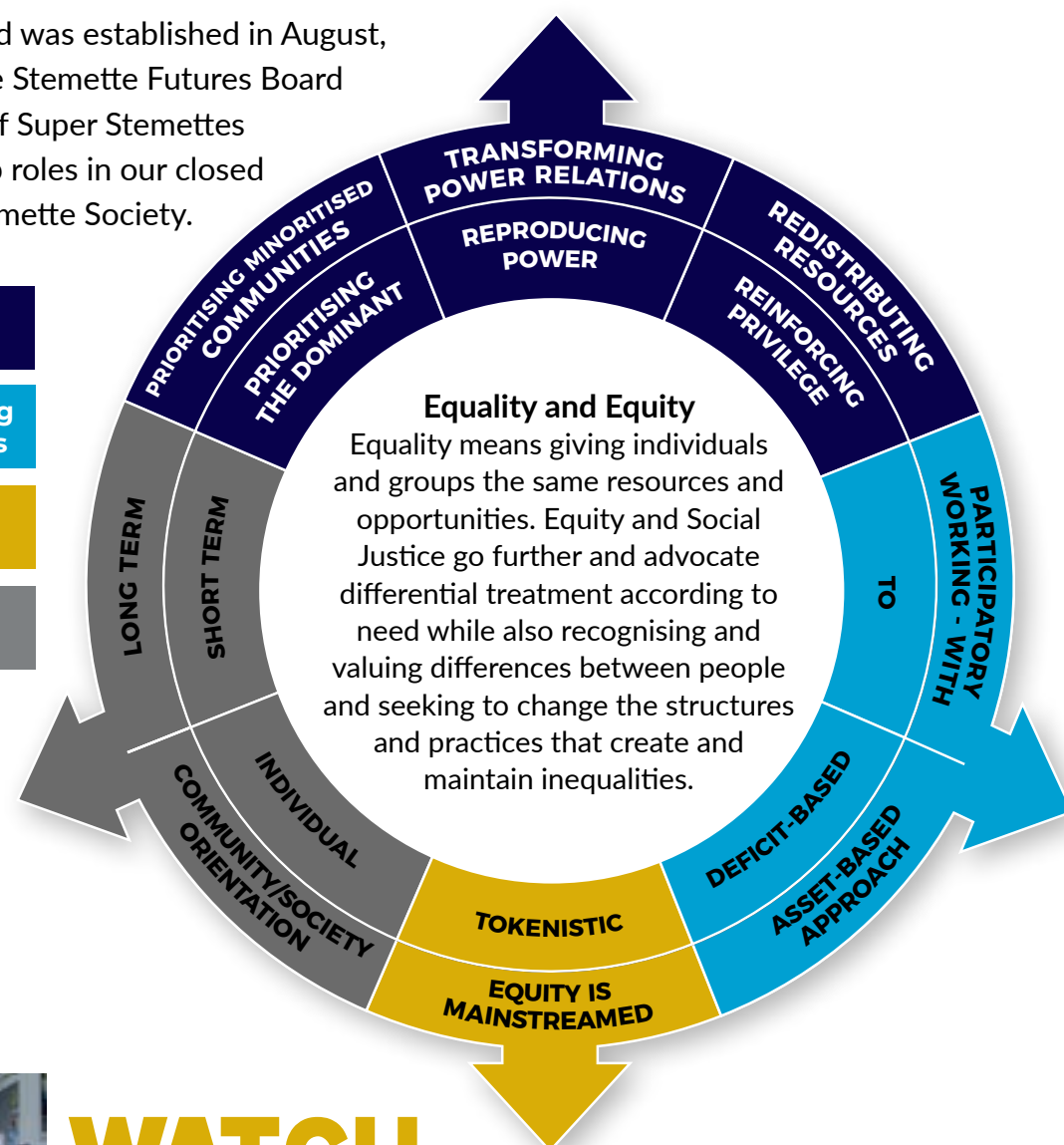
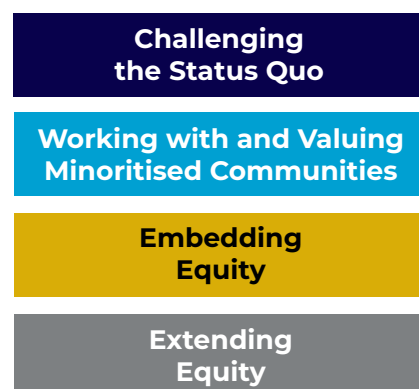


# Formalising Equitable Practice

We've reached the final year in our four-year involvement in the Youth Equity + STEM (YESTEM) project: a research-practice collaboration with the Institute of Education.

We have been able to reflect on equitable practices at Stemettes and see them formalised in the project outputs, research papers and new STEM education & outreach practitioner tools. Our involvement also allowed us to develop our practice.

The Stemettes Youth Board was established in August, with representation on the Stemettes Futures Board of Trustees. Two cohorts of Super Stemettes have now taken leadership roles in our closed online community The Stemettes Society.



## WATCH

For more details on YESTEM, visit [yestem.org](http://yestem.org)

# Ranvir's Story



Stemettes Ranvir is accustomed to overcoming challenges. Diagnosed with optic glioma at the age of four, she has no peripheral vision. However, with a love of STEM from the age of 11 and a sense of determination, she never let anything hold her back. She is now a second-year engineering student at City University.

Neither of Ranvir's parents attended university or work in STEM and she attended state-funded schools.

She regularly talks at events about the challenges of being visually impaired and recently stated in the Stemettes Society:

“I think one of the main challenges we all can probably relate to more is the challenge this education system throws at you by being a female when studying STEM subjects.”

Ranvir stumbled across Stemettes online during her A-Levels.

*“I have loved being a part of this amazing STEM community as it has really brought back my passion for tech, when I needed it the most. It has been a great place to gain various opportunities and network with other like-minded young females and role models.”*

*“The skills I have gained being a part of this society will allow me to showcase my love of STEM to my future employers and build a network around me to help me reach my dream career as a design engineer.”*

Ranvir's name has been changed to protect her identity.

“As my first event with STEM, I found it both insightful and inspirational – the ideas, the application and the energy from the STEMettes was amazing, I feel honoured to have been part of it. The event itself, was incredibly well run and the team should be proud of their professional delivery.”

Stemettes volunteer



JOY

## We'd like to thank our Partners and Funders who make this all possible

Ada Ventures	Form3	National Education Union
Akamai Technologies	GCHQ, MI5 & MI6	NSMP
Alida	G-Research	Onfido
Anglo American	H&M	Ørsted
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Confused.com	Mercedes-Benz Grand-Prix F1 Team	Standard Chartered
De Beers	Millennium Point	The Linnean Society of London
Department for Transport	Moonpig	XTX Markets
Deutsche Bank	Nestlé	
East Coast Skills Fund		

“Absolutely fantastic event, really well structured and virtually managed to give the best experience for all involved! So pleased to have so many engaging and curious conversations with the girls in speed networking and I certainly came away buzzing!”

Stemettes volunteer





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