



FL

# BRIDGING THE GENDER GAP IN STEM

2018 Report

SPONSORED BY



# A WARM WELCOME TO THE SECOND ANNUAL WOMEN IN STEM SURVEY

It is well documented that most women face unfair challenges in the workplace. The Science, Technology, Engineering and Mathematics (STEM) sector is no different in that sense. What is alarming, however, is the lack of progress over the last decade; despite the numerous initiatives in place to encourage more girls to pursue STEM subjects, the increasing exodus of women out of the sector still continues.

With women making up just 14.4 per cent of the STEM workforce, it is no surprise that biases persist, especially in the industries where the gender split is unbalanced. We also know that there is a strong desire amongst many people, male and female, working in the sector to see this imbalance addressed and the barriers removed.

Our recommendations in this report provide practical actions and advice for anyone looking to champion and support diversity in their sector.

We have provided guidance to help women feel equipped to face the gender stereotypes head-on. We need to create a strong pipeline of female leaders for the future, in order to do this, we need to face gender stereotypes on a daily basis.

We have also included a roadmap to help companies assess themselves against others on their journey to addressing and achieving gender parity.

This year, we have not only reported on what women's experiences in the STEM sector are, but created a junior version of our findings and interviews to help us start engaging with the next generation of talent. We want to expose young people to the breadth of opportunities in the sector.

It is important that we give children the information they need at a much younger age so they can make informed decisions about career options when the time comes.

We are delighted to be working with some fantastic partners to share the collective experiences of women working in the sector. Special thanks go to: BASF, GKN Aerospace, Yorkshire Water, United Utilities, NG Bailey, Ada, the National College for Digital Skills and many other supporters.

Please do get in touch with any ideas or suggestions. We are always looking to create collaborative partnerships to help us reach a wider audience and to amplify the work we are doing to bridge the gender gap in STEM.

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# HELLO!

## WHAT ARE WOMEN SAYING ABOUT WORKING IN STEM?

**1,653**  
participants

### The missing voices of women working in STEM

Over the years countless research has been conducted to understand the reasons why women are less likely to pursue STEM subjects and qualifications and to have thriving careers in the STEM sectors. We know from this research and from today's statistics that many who enter the sector ultimately leave. Research by Centre for Talent Innovation (CTI) found that a staggering 52 per cent of women in the STEM sector leave their careers. These are highly skilled, highly educated women. Their departure from their chosen industries causes an alarming brain drain in a sector that is reporting a skill gap. As an organisation we decided to undertake this research because we found that existing research is being carried out by organisations where women were underrepresented, meaning the data being reported was not always representative of the voices of women. Our independent research goes to the women themselves, from all walks of life and backgrounds, to ensure that their voices are represented and the issues they are facing are being communicated to employers.

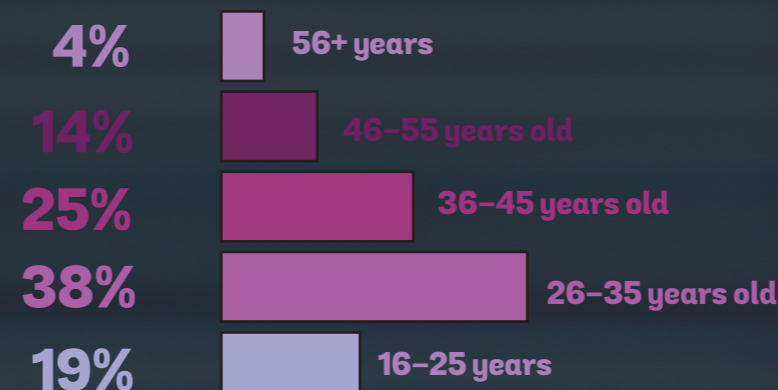
This is the second year of our research, which has drawn in 1,653 participants from across the private, public and not-for-profit sector; including those that have checked out of the sector, as well as those that are still working in the sector.

**82%** of participants identified as white

**16%** of participants identified as ethnic minorities

**2%** of participants preferred not to disclose

### Age of participants

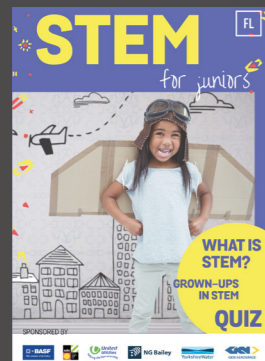


\* 0.1 per cent of the participants preferred not to disclose their age.

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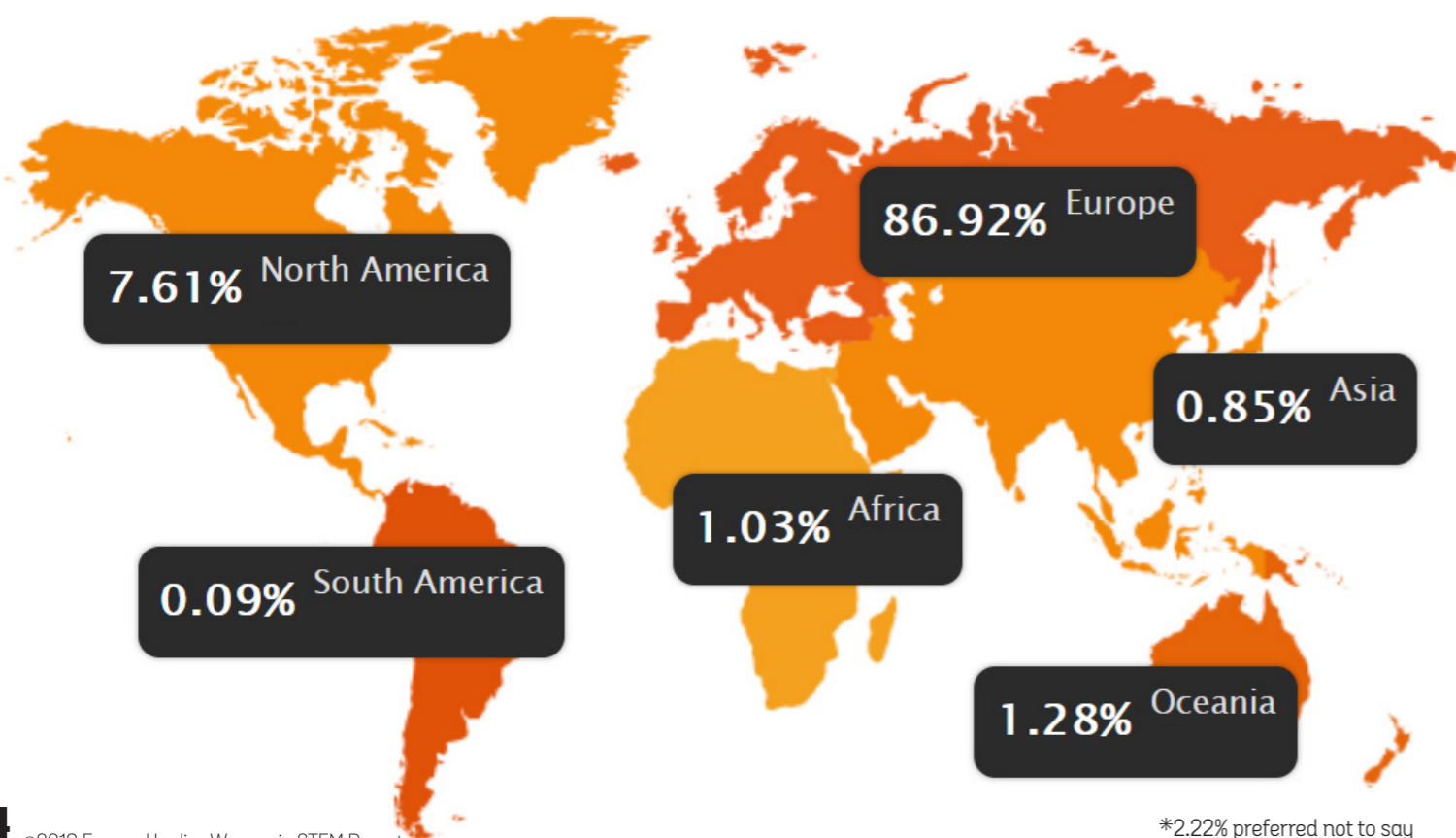
# ABOUT THE STEM SURVEY...



Bridging the Gender Gap in STEM Survey is a comprehensive study of the experiences of women working within the STEM sector across the UK and around the world. The study is part of an annual programme to amplify the voices of women within the STEM sector worldwide. The survey focused on areas of motivation for pursuing a career in STEM, conditions that enable women to thrive and how we can inspire future generations. This year's survey is sponsored by GKN Aerospace, BASF, Yorkshire Water, United Utilities, Ada and NG Bailey, to help bridge the gender gap in the sector.

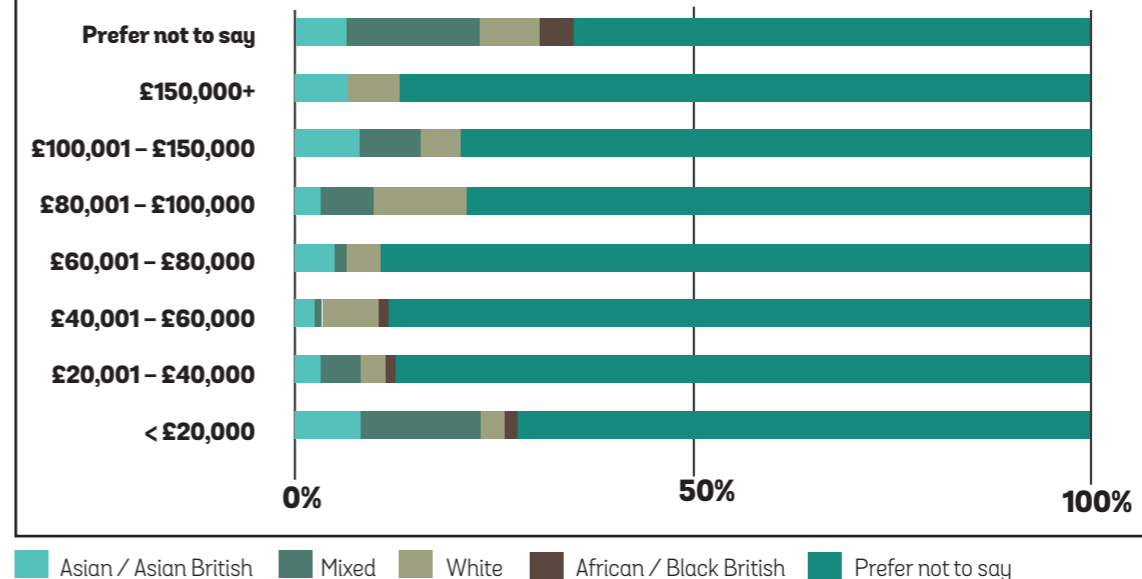
The report also includes a junior addition for curious 8-14 year olds.

## ENTRIES BY REGION



## SURVEY DEMOGRAPHICS

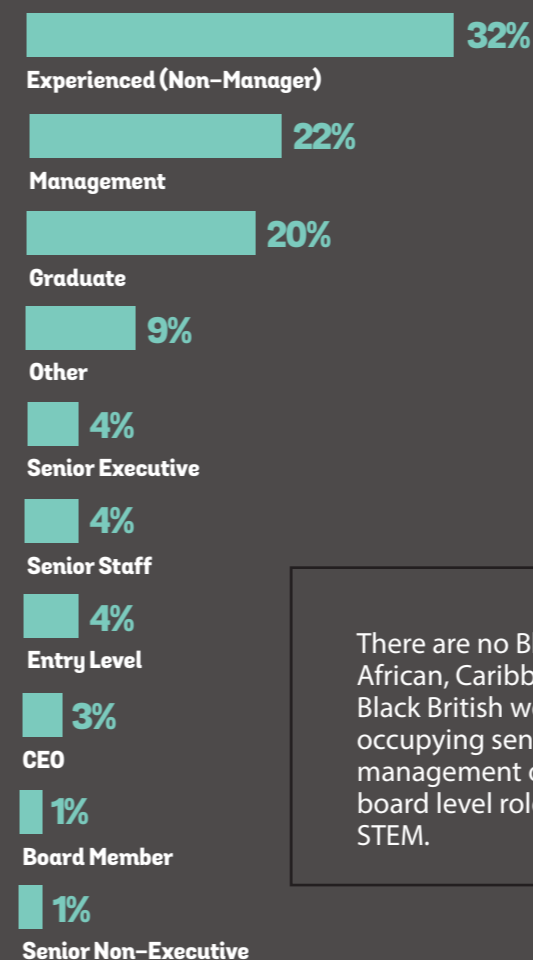
### HOW MUCH DO YOU EARN?



The pay gap between white women and women of other ethnic backgrounds is quite significant.

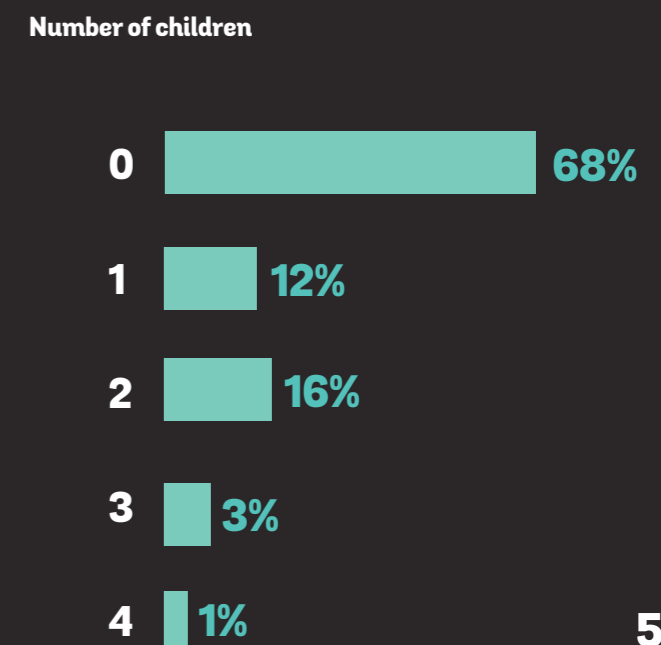
Only 17 per cent of the women earning more than £150k were from Black, Asian or other Minority Ethnicity (BAME). It is also noticeable that there are few women of BAME backgrounds in senior leadership roles. In fact, there are no women from either a Black, African/Caribbean or Black British background earning more than £150k. There are no women of Black, African/Caribbean or Black British ethnicities occupying senior management or board level roles.

## JOB LEVEL BREAKDOWN



There are no Black, African, Caribbean or Black British women occupying senior management or board level roles in STEM.

## HOW MANY CHILDREN DO YOU HAVE UNDER THE AGE OF 18?



# The future is not what you dream, but what you make.

Our innovations help cities use less energy, make the air we breathe cleaner and turn electric transport into a practical reality. That's why at BASF, we're optimistic about the future.

Find out more at [wecreatechemistry.com](http://wecreatechemistry.com)

**■ - BASF**  
We create chemistry



Lisa Kelly,  
Head of BTC,  
UK & Ireland,  
BASF

## BRAVERY AND BELIEF – THE PATHWAY TO STEM CAREER SUCCESS

Heading up chemical manufacturer BASF plc's UK and Ireland distribution arm, BTC, Lisa Kelly shares her insight into how the industry has changed for women in the past decade and offers some inspirational advice for women considering a STEM career today.

Far from narrowing my choices, by choosing science at school I have opened up a world of possibilities. Combining a technical understanding of what we do as a chemical manufacturer and how that fits into our customer applications, with a commercial sense, has seen me work in areas from nutrition to detergent, supporting hundreds of industries.

### Dealing with the challenges

It's not always been easy. I've been in many situations where women have been in the minority. It can be quite intimidating to be the only woman in a lecture or one of perhaps 20 women in a 600-strong organisation. When I started out, even customer perceptions of women meant you had to prove yourself. Today, a lot of senior leadership teams are still male-dominated and unconscious bias remains around the perceived difficulties of employing women.

### Changing times

But things are changing. Over the past decade, I've seen more women attending industry events, flexible working for men and women is mainstream, and the view of women is shifting. At BASF, our senior leadership team is passionate about diversity and inclusion. We recognise that men and women bring different skills and together they're a powerful combination. Our policies are focused on attracting, retaining and developing the best talent and our ambassadors visit local schools and colleges to promote STEM careers and open doors.

### Owning your opportunities

But to really make a difference, we need to encourage women to be confident and believe. We need girls to challenge the biases about their career paths and be brave in their choices. At BASF there is a spirit of optimism – it supports our corporate values. My message to girls would be to let optimism be your driver. Reach out to the opportunities and grab them; own them. By doing that, you can steer yourself to a positive and successful career.

### Who are the best employers for women in STEM?

At BASF plc the gender pay gap is currently 5.4%, which is well below the overall UK gender pay gap rate of 18.4%\* (\*for all employees in 2016, as reported by Office of National Statistics 26 October 2017). Visit BASF Careers at: <https://www.basf.com/gb/en/company/career.html>

!

17%

of respondents thought that none of the diversity initiatives in their workplaces had been effective.

31%

of survey participants thought that role models amongst senior leaders had been effective in addressing diversity issues in their companies.

“

Women reach a glass ceiling as they advance in their careers due to gender bias. We need more women promoted to leadership positions where they can serve as role models to change the prevailing culture of bias and double standards and affect real change.

– 2018 survey participant.

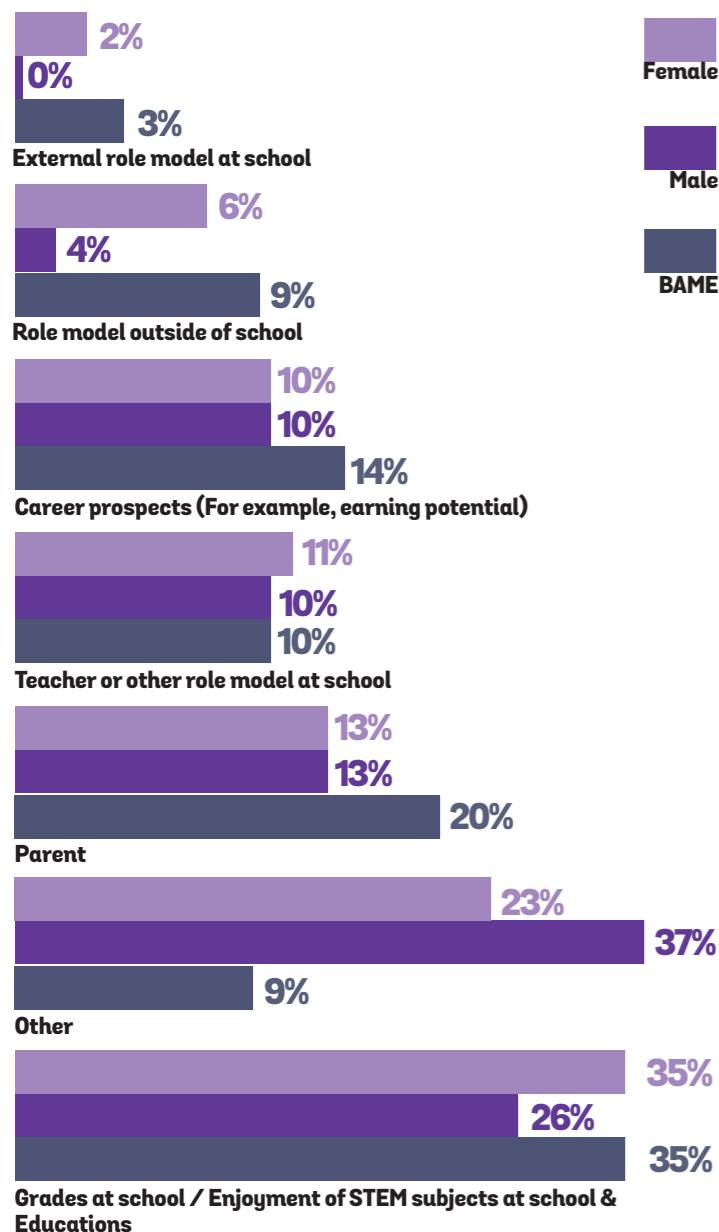
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External STEM ambassadors inspired only 2–3% of participants irrespective of their background.

# 1 in 5

of BAME participants were inspired by their parents to pursue courses and careers in the sector. Engagement with parents is vital for encouraging children from minority backgrounds into the sector.

## WHAT INSPIRED YOU TO A CAREER IN STEM?



Reanna Evans, Project Manager, NG Bailey



Jennie Shackleton, Apprentice, NG Bailey

## LEARNING ON THE JOB – WHY APPRENTICESHIPS OFFER MORE

NG Bailey, the UK's largest independent engineering and services business, started training apprentices in 1934 and now attracts over 4,000 applications to its programme each year. We invited a recent graduate and a current apprentice to share their experiences.

Jennie Shackleton is in her fourth year of an apprenticeship with NG Bailey. Reanna Evans is four years out of her apprenticeship and employed as a Project Manager at NG Bailey.

### Question: What attracted you to an apprenticeship?

Jennie: I looked at graduate schemes, but wanted to learn from the ground up.

Reanna: I started doing AS levels at school, but realised that wasn't the right path for me. An apprenticeship gave me a chance to earn money and build my reputation in the business whilst I learned.

### Question: What is most challenging about being an apprentice?

Reanna: Understanding how to manage people, particularly some of the longer serving engineers, who are perhaps more traditional in their thinking, has been challenging. Apart from that, working long hours and studying on top.

Jennie: Working, learning and maintaining high standards is intense and four years is a long time to sustain that. I was initially worried about the physical side of the job, but that was just my perception of the industry. I quickly learned that being the strongest isn't the same as being the best.

### Question: What are/ were the most rewarding aspects of your apprenticeship?

Jennie: Taking part in skills competitions and joining the Apprentice Council to help improve apprenticeships. I have also won 'Apprentice of the Year' and 'Student of the Year' awards.

Reanna: Winning the BESA (Building Engineering Services Association) award for outstanding achievement and being named Graduate of the Year for a combination of maturity and knowledge. Achieving a senior role within three years of completion has been great. The graduate route wouldn't have offered the opportunity to develop my skills and gain the experience I needed to achieve that. Apprenticeships really do grow you as a person.



NG Bailey

Everything we do is driven by our vision:  
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We're one of the UK's leading independent engineering and services businesses and we offer a variety of different career paths, including our award winning apprenticeship programme that focuses on a range of electrical, mechanical and technical specialisms, as well as a number of business based roles.  
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It takes more than 5,000 of us to keep our network flowing – from IT specialists, engineers and project managers, scientists to financial experts, we're one of the largest employers in the North West.

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Different ideas and perspectives help us innovate, manage risk and provide leading customer service in a sustainable way.

Our employee diversity networks are an important part of ensuring people are valued, respected and supported to achieve their potential and our women's network 'GENEq' is doing just that! If you'd like to connect with us, or find out more, visit [unitedutilities.com/careers](https://unitedutilities.com/careers)



## VARIETY AND OPPORTUNITY – THE PAYOFF OF A STEM CAREER



- Women believe that their organisations are being held back by:
- 1 The culture of the workplace
  - 2 There is no pipeline of diverse recruits
  - 3 Leaders do not prioritise diversity issues

### WHAT DO YOU THINK IS HOLDING YOUR ORGANISATION BACK WHEN IT COMES TO ISSUES OF DIVERSITY?



A toxic workplace culture is driving women away from STEM professions. Women believe that managers do not act on issues of sexism and sexual harassment. The whole industry culture needs to shift to enable these unreported or unresolved issues to be tackled. The women who took part in this survey believe that strong cultural norms allow bad behaviour towards certain groups.

A strong pipeline of diverse recruits is needed to help address the issues in the sector. Advertising the human factors and creative opportunities alongside the logical, mathematic and scientific skills needed in STEM, is important for attracting heterogenous candidates.

Leading United Utilities' Water Control Operations business, Jenny Whitehead manages highly technical teams and is developing a strategy to shape the future of integrated control through digital technology. Despite not having a pure science or engineering background, she has unlocked significant opportunities in a varied STEM career.

When I was at school, I did work experience with the Environment Agency and I was hooked. From then on, I was focused on that career path, going on to study A-Levels and a degree in Geography. After university, I applied for graduate training at three different water companies and started with United Utilities.

**The importance of culture**

Although the graduate scheme was more diverse, senior management outside of HR was all-male. Since then, there have been big changes and, generally, there's a reasonable split. The culture of an organisation plays a big part in that. Attitudes to diversity and inclusion roll down from the senior leadership team, where United Utilities has both a female Operations Manager and a female IT Manager. Our Generation-Q network to promote equality has been active for a number of years. It has established flexible working policies, helping us to retain the skills we need in the business and, through our recruitment policies, we make an effort to tackle any unconscious bias to ensure we get the best candidate for any post.

**The need to change perceptions**

There's still progress to be made for women. Perceptions are changing, but it takes time. At a grassroots level, there's a huge lack of awareness of engineering and other STEM careers in schools. That means that young people don't have an appreciation of the variety of engineering and STEM jobs that are available, as well as the opportunities to dip in and out of pure engineering or pure science, to move into strategy or operational roles. There's a whole host of disciplines that can provide you with the analytical skills to build a successful career in industry.

Anne Newton, Costing and Modelling Analyst, Yorkshire Water



## READY TO INSPIRE THE NEXT GENERATION

Yorkshire Water's Anne Newton took part in Forward Ladies' STEM Inspired Leadership Programme. Here she shares her experience and what she's gained from getting involved.

After a 20-year break from a full time technical role, I felt honoured to be chosen as part of the first cohort for the STEM Inspired Leadership Programme in 2016/17. Yorkshire Water's willingness to invest in my personal development meant a great deal.

### Building confidence and motivation

The Programme, as well as being a great opportunity to work with highly motivated and supportive women who I would not have met otherwise, changed how I see myself and made me more aware of how others see me. It has also given me a greater understanding of my personal values and brand, how to build a network of contacts and how to receive support and give it to others.

Undertaking the Programme has given me the confidence to pursue other areas of interest outside my job role, including becoming an active STEM Ambassador, so the company has also gained from my increased confidence and motivation too.

### Highlighting the opportunities of STEM

Part of my role as a STEM Ambassador is to change the outdated perceptions of what STEM careers and workplaces are like these days. To make a real difference, we need to engage with parents and teachers who have the most influence, informing them about interesting job roles that have an impact on society more widely. We also need more visible role models, for example, posters or individual profiles that pupils can refer to, and having inspirational speakers at school events, could improve the image of the industry.

From a business perspective, employers should get involved in education from early secondary school age to make pupils aware of the variety of opportunities available and to encourage the study of STEM subjects. New entrants to the industry should receive mentoring from both internal and external sources, to provide a support network that helps them deal with any challenges and make the most of any opportunities.

### Making everyone feel valued

But it's also important to retain the skills businesses already have. Offering women challenging job roles with potential to progress, plus flexible working, including part time roles and creating an environment where everyone is valued, is key to that.

As women in STEM careers, we all have a responsibility to be good role models and be willing to talk about our career paths, the challenges we've faced and the obstacles we've overcome. Being enthusiastic about your role and employer could help to inspire the next generation and encourage others to consider a career using STEM too.

Donna Pearmain, Business Analyst, Yorkshire Water



## INSPIRED LEADERSHIP PROGRAMME BUILDS CONFIDENCE AND BELIEF

Donna Pearmain took part in the first Forward Ladies' STEM Inspired Leadership Programme at Yorkshire Water. As she explains, her participation couldn't have come at a better time both professionally and personally.

The timing of the opportunity to participate in the Programme in conjunction with Forward Ladies was perfect for me. After an extended period of maternity leave, I felt that I was struggling professionally to fit back into work.

### Believing in yourself

The programme not only helped me with my confidence, it helped me to take a fresh look at how I work. As a consequence, I'm now able to recognise my strengths (and weaknesses) and how to use these to get the best results in all I do. The key messages I took away were:

- Believe in yourself
- Nothing is unachievable
- Put yourself out of your comfort zone to make yourself better at what you do
- If you see a job specification and can already do 50% of the role, don't be put off by the fact that you can't do the other 50%.

With those messages front of mind, I have achieved progression in my role and I have a clear idea of where I want to be in terms of my career.

I'm fortunate to have had the support of my employer, but barriers to women embarking on STEM careers do persist. Some of the biggest barriers are that STEM still seems quite a male dominated area and I've sometimes felt a little out of place. I'm lucky that the team I am working in now is more inclusive, adaptable to people's work life balance and supportive.

### Building more diversity through inclusion

STEM careers also need to be more inclusive. Having a degree should not be a prerequisite. Although I've done further education via the Open University, I don't have a degree and that's stopped me applying for jobs where it was a requirement. Using less jargon in job adverts may also open them up to more people.

To attract a more diverse and inclusive workforce, employers need to think flexibly, not just for women, and promote what they do to a wider audience. Getting people involved early, by going out to schools, promoting opportunities and getting more women interested in STEM is also important. We can all participate in that. I have taken part in STEM promotion projects and worked with year 6 girls to talk about my career and the roles I have done. I am also a school governor and promote STEM within the school that I work with. By being positive role models and promoting diversity in all that we do, we can inspire and lead the next generation of women in STEM.

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**Gordon Pitman,**  
Chief HR Officer,  
GKN Aerospace

# GKN AEROSPACE – WHERE DIFFERENT IS GOOD

**GKN Aerospace is a global innovator in aerospace technologies. As Gordon Pitman, Chief Human Resources Officer points out, the company's vision for a culture and leadership that promotes diversity and inclusion is just as forward-thinking.**

The vision is for GKN Aerospace to be known as a place where everybody, regardless of who they are and their background, can come and feel 110% part of a team. Where they can know that, every single day, their unique strengths and talents will be valued.

## Bringing your whole self to work

It's about creating a culture where everyone is free to bring their whole selves to work. If you create that inclusive culture, the diversity of your workforce is inevitable. At the moment, our senior leadership team is 15% female, with a 20% target, but focusing on targets risks missing a wider opportunity to benefit from a truly diverse and inclusive culture. To encourage diversity, our senior team are trained to recognise unconscious bias, shortlists for senior roles must be diverse, and awareness sessions run for all staff and are included in our induction process. If STEM industries like ours fail to attract women, we miss out on a large proportion of the talent pool as well as an opportunity to create role models for the next generation.

## Strategic partnerships to boost engagement

We're also developing strategic partnerships with organisations such as Forward Ladies. Our plans include creating a Women's Network and a Women in Leadership programme. We work externally with schools, colleges and universities, particularly focused on those based in or around the local communities where our key hubs are situated. Diversity and inclusion are high priorities for us. We're excited about creating a business where all employees not only survive but thrive; where difference is wholeheartedly seen as good.

## Come fly with us...

A career in aviation is an exciting and rewarding career for all. From flying aeroplanes, to getting involved in the design and build of fascinating machines, or being involved in the management of these businesses. The aviation industry is lagging behind other industries when it comes to diversity, but the UK's aviation and aerospace sector is committed to working together; to build a more balanced and fair industry for women by launching a Charter for Women. Opportunities abound for those looking to help transform this industry. \*4.3 per cent of UK airline pilots are women and 94 per cent of aviation companies are run by men.

## How did you find your current role?

0%	Returners Programme
4%	Apprenticeship
15%	Experienced Hire (Internal)
16%	Graduate Scheme
29%	Other
36%	Experienced Hire (External)

Other ways women found their current roles were through academic posts or leaving to set up their own businesses.

There is an opportunity to use the apprentice levy to recruit more apprentices.

Returner programmes should also be ramped up to get more women who have opted out of the profession to re-enter.



## ALWAYS MOVING FORWARD

**GKN Aerospace is proud to support Forward Ladies in promoting diversity in the STEM sector.**

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**MAKING THINGS FLY**

# DO YOU BRING YOUR WHOLE SELF TO WORK?



Dawn Bonfield, Royal Academy of Engineering Visiting Professor of Inclusive Engineering, Aston University

## Are you happy to be identified by your gender in the STEM sector?

**19%** of women prefer to be identified as a professional first.

## DO YOU FEEL EQUALLY CONSIDERED FOR PROGRESSION IN YOUR CURRENT ROLE?

Dawn Bonfield MBE, a Royal Academy of Engineering Visiting Professor of Inclusive Engineering at Aston University, is currently researching the identity of women in engineering, considering the professional and social conflicts that can arise and what this means for workforce diversity.

Everyone has a personal and professional identity. For men they don't conflict, as traditionally, men were engineers and don't have a problem with being a 'man' and being an 'engineer'. For women, because they traditionally haven't been engineers, there can be a conflict between their personal identity as a woman and their professional identity as an engineer.

### Potential damage to the profession

That means women can often feel they have to choose between these identities. That's really damaging for a number of reasons, such as stopping women from entering the profession and also, for those women in the profession, it can prevent them from looking at projects from their perspective as a woman.

We talk a lot about people being unable to bring their whole selves to work. That has a significant impact for women returning to the workplace after having children and the loss of skills that can bring. For example, 57% of professionally qualified women opt out of engineering under the ages of 40-45, whereas the figure for men is around 17%. If you feel you have to hide your identity and can't talk about your family, when the time comes when you need time off or to work more flexibly, that conversation is incredibly difficult. It also leads to a lack of female role models for tomorrow's engineers.

### Building a richer, more diverse industry

Looking through the lenses of different identities is more than just ticking a box. It's crucial to ensuring that our engineering products are widely applicable, less biased, and more inclusive of different people's perspectives so that they reflect your audience or customers. The whole profession would be richer if we were able to bring in the totality of people's identities.

# WHAT ARE THE IMPORTANT FACTORS YOU CONSIDER WHEN CHOOSING YOUR EMPLOYER?

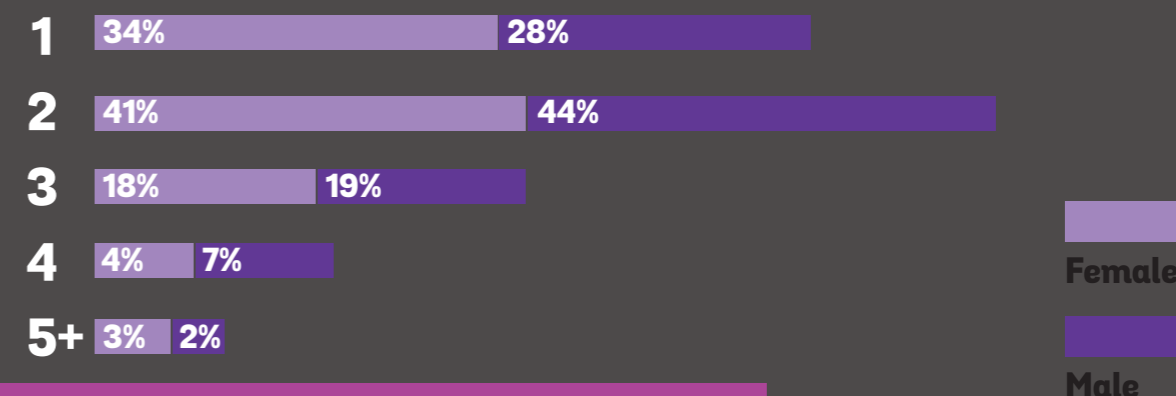
Regardless of their sectors, the opportunities to learn, grow and do meaningful work were the top factors women considered when choosing an employer.

**85%** thought a flexible work schedule and culture were important.

**83%** thought competitive earnings and benefits were very important.

**66%** of the women surveyed have had two or more jobs in the last five years compared to 72 per cent of men.

## HOW MANY JOBS HAVE YOU CHANGED IN YOUR CAREER?



## WHAT ARE THE MOST IMPORTANT FACTORS YOU CONSIDER WHEN YOU CHOOSE A PLACE OF WORK?

	Very important	Important	Slightly important	Not important at all
Job security and stability	53%	35%	10%	2%
A flexible work schedule and culture	48%	38%	13%	1%
Competitive earnings and benefits	37%	46%	15%	2%
Opportunities to learn and grow	73%	24%	2%	1%
A fun work environment	32%	46%	19%	3%
Long-term career prospects	51%	37%	11%	1%
Meaningful work	73%	24%	2%	1%
An organisation's gender pay gap reporting	18%	37%	30%	15%

## WHAT ARE THE IMPORTANT FACTORS YOU CONSIDER WHEN CHOOSING YOUR EMPLOYER?

**97%**

of candidates thought opportunities to learn, grow and do meaningful work were either important or very important.

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ada

National College for Digital Skills

Tina Götschi, Vice Principal Teaching and Learning, Ada, the National College for Digital Skills

Tina Götschi is Vice Principal Teaching and Learning at Ada, the National College for Digital Skills. She explains why both students and businesses are missing out through a lack of diversity.

There is a huge digital skills gap in the UK, which perhaps wouldn't be so big if tech companies were better at embracing diversity. When it comes to recruiting, they need to overcome bias to employ people who aren't just like them. That means considering a wider talent pool or looking beyond typical graduate entry.

#### Reaching a wider audience

Supply is also an issue. At Ada, we're seeing growth in interest and uptake of apprenticeships offered by companies such as Google, Deloitte and Sainsbury's, for whom we offer educational provision. Demand is high and the schemes offer a more inclusive experience. Sparking an interest in tech has to start early, catching children at primary school, teaching coding and creating excitement about it. Great work is being done by organisations such as Computing at School and Raspberry Pi, but to make a difference, it needs to be reaching tens of thousands of students.

#### The risk of a lack of diversity

A lack of a diverse workforce can create real risks and challenges for the sector. Companies that don't have a diverse population can't fully understand their customer base – Apple's health tracker app that failed to include periods – is a glaring example.

#### Owning the opportunities

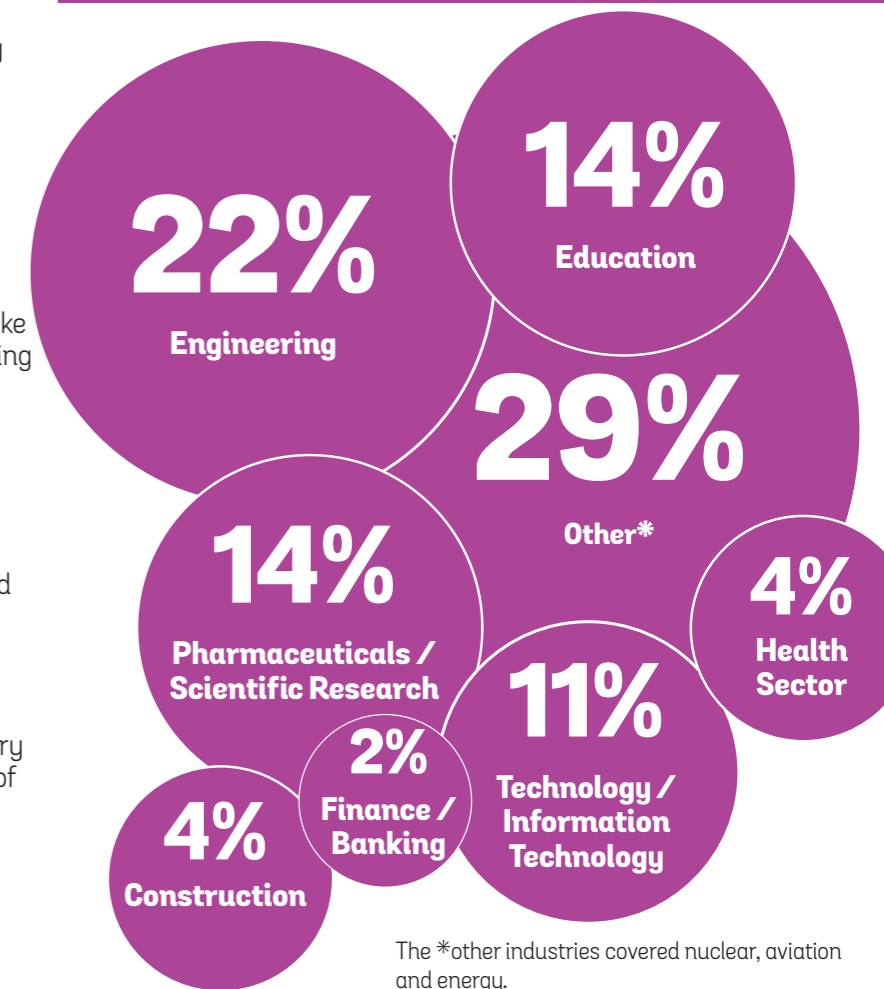
As women, we must ask ourselves, 'What does our ideal job look like?' The answers are often: one that creates solutions to real-life problems and that has the opportunity to be part of a global team; with flexibility, remote working and a good work-like balance. We want to work for a company that maintains strong core values; doing a job that offers status and respect, with a great salary and opportunities for promotion – one where we can make a difference. A career in the tech sector can offer all of that. It's an opportunity not to be missed.

Women are over-mentored and under-sponsored.

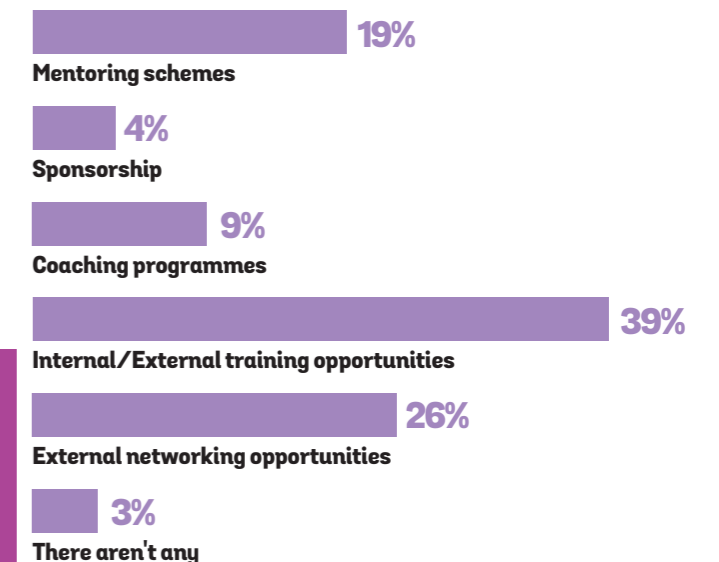
Only **4%** of participants have been sponsored in the last two years.

## CUTTING THROUGH THE TECH BIAS

#### WHAT INDUSTRY DO YOU WORK IN?



#### WHAT PERSONAL DEVELOPMENT HAVE YOU ACCESSED IN THE LAST TWO YEARS IN YOUR WORKPLACE?



# DIVERSITY ROAD MAP

We clearly still have a lot of work to do in levelling the playing field in STEM sectors. Companies and their leadership need to start prioritising diversity and taking steps to attract and retain women throughout the organisation; as well as adopting a more collaborative approach across industry.

Progress will not be made until we have our hearts and minds committed to improving the representation of women and other minority groups across industry. Leaders need to demonstrate their commitment, because the majority of women who took part in this survey do not believe that management assign adequate priority to this issue. It is important that management is committed and seen to be committed to resolving reported issues of sexual harassment, sexism and all other forms of intolerances to create inclusive cultures and environments that nurture and support everyone.

The goal of this road map is to move people from level one to level five.

STAGE	1	2	3	4	5
	DENIAL	DISEMPOWERED	ISOLATED CHAMPIONS	TRIBES OF LEADERS & CHAMPIONS	AUTHENTIC & INCLUSIVE CULTURE
THEME	It's them not us.	It's the world we live in.	We are trying but they are leaving.	We've made some progress but still have work to do.	It's possible.
INDICATORS	HR transactional focused. Insufficient diversity on recruitment panels. Recruitment is only targeted at the same areas and schools.	A genuine belief that it is simply a tick in the box so nothing actually changes on the ground. Lack of understanding of issues.	There is not enough diversity at the senior level so unconscious bias is inevitable.	Women actively progressed into senior roles.	Strong consistent and committed actions across all levels of the organisation to drive innovation and attract & retain the very best talent.
BEHAVIOURS	Out of touch and demonstrates a lack of understanding of the importance of diversity. Short-term thinking. Unconscious bias. Disregard issues of gender pay gap and equal pay so are not addressing them.	Senior leadership talk about diversity, but very few follow through actions. Managers believe there are more important things to do. Unconscious bias.	Not enough women in senior roles.	Willingness to look and listen beyond the current profiles when recruiting and promoting talent.	Adaptable and flexible approach.
CULTURE	Culture is entirely male-led. Lack of understanding around issues with lack of diversity and isolation. Protective of the status quo. Management do not act on issues of sexism, homophobia, racism, ableism. Toxic environment for other minorities.	Culture is predominantly male-led. Lack of understanding around issues facing other groups. Management do not act on issues of sexism, homophobia, racism, ableism.	Lack of coordinated approach, support and resources to tackle issues. Lack of leadership buy-in and direction.	Pockets of excellence coordinated approach, support and resources to tackle issues.	Inclusive of all. Diversity is embedded both in theory and practice from the leadership.
LANGUAGE	"We don't have diversity issues." Tolerance of this attitude. "The industry roles naturally attract more males than females". "There is a bigger pot of non-diverse candidates who are equally/more motivated to be high achievers".	"Historical imbalance". "There is a limited pipeline of diverse recruits". "Not enough women choosing to study/work in STEM in the first place".	"Challenges for work-life balance for women during the middle career years 30-45". "I think we attract female graduates but they leave the industry before reaching senior level".	Too soon for change, the ideas that have been addressed will affect a more diverse workforce moving forward but it is not something that can change overnight. Time to absorb change.	We want to create a place where all can thrive. Working hours to fit with sensible work-life balance.
RECOMMENDED ACTIONS	Unconscious bias training Start engagement and discussion of gender issues. Education needed. Diversity in leadership needed urgently. Please see actions for stages 2-5.	Unconscious bias training. Review of recruitment and HR policies. Diversity in leadership needed urgently. Please see actions for stages 3-5.	More support needed from leadership. Diversity due diligence. Brand awareness activities to target groups. Please see actions for stages 4-5.	Bench marking against the industry. Seek out best practices from different industries with clear roadmaps to success. Please see actions for stage 5.	Collaborative approach and connected with other organisations with shared values and vision on diversity.

# THE ROADMAP IS MADE UP OF 5 STAGES

### Stage one

Companies at this stage are at the earliest or lowest level of diversity development. The theme and culture of the organisation is generally apathetic, with a lack of awareness and unwillingness to change. The indicators are the presence of few women within the organisation or the women present only being in management or customer service roles. There is a denial of any issues within the sector.

### Stage two

Stage two companies are aware of issues but feel unable to resolve the issues. They lack the knowledge, resources and the commitment to make any real progress. Companies at this stage do not take responsibility for the role they have to play and believe that societal norms, and even biology, are the reasons for the lack of representation of women in the industry.

### Stage three

This stage is evidenced by the presence of some passionate individuals but there are not enough of them to create systemic change in the organisation. As a result, their efforts do not yield the benefits they want.

### Stage four

Organisations at this stage have pockets of excellence and have indeed managed to bridge the gap in some departments or geographic areas.

### Stage five

Organisations that reach stage five are unicorns. They are normally identified by the representation of women across all levels of the organisation. Research and leadership time is committed to these issues and the impact is yielding benefits for all across the organisation. There is zero tolerance towards all levels of sexism.

The Royal Academy of Engineering's first female CEO  
Dr Hayaatun Sillem is changing perceptions about what a leader in engineering looks like

## DR HAYAATUN SILLEM FIET CHIEF EXECUTIVE OF THE ROYAL ACADEMY OF ENGINEERING JULY 2018

Dr Hayaatun Sillem is the Chief Executive of the Royal Academy of Engineering, which brings together the UK's leading engineers and technologists for a shared purpose: to promote engineering excellence for the benefit of society.

Prior to her appointment as Chief Executive, she held the post of Deputy CEO at the Academy. She previously served as Committee Specialist and later Specialist Adviser to the House of Commons Science & Technology Committee.

Hayaatun has extensive leadership experience in UK and international engineering, innovation and diversity and inclusion activities. She is a trustee of the London Transport Museum and EngineeringUK; a member of the Made Smarter Commission and Chair of Judges for the St Andrews Prize for the Environment.

Hayaatun has a Masters in Biochemistry (MBiochem) from the University of Oxford and a PhD in signal transduction from Cancer Research UK/University College London. She is a Fellow of the Institution of Engineering and Technology.



ARE THERE ANY VISIBLE ROLE MODELS & CHAMPIONS IN YOUR INDUSTRY?

19%

had no visible male or female role models

# METHODOLOGY

The questionnaire used for this survey was developed by FL with contributions from our partners.

FL compiled and analysed the responses in-house. All tabulations, percentages and other calculations published in the accompanying report were compiled in accordance with established research standards.



## ABOUT GRISELDA TOGOBO

Griselda Togobo is a multi-faceted entrepreneur, engineer and chartered accountant. She currently uses her vast experience with multi-national businesses to assist individuals, small and medium enterprises on ambitious growth targets. She trained as a chartered accountant with Deloitte LLP and holds an MPhil in Industrial Systems, Manufacture and Management from Wolfson College, Cambridge University.

A regular speaker at conferences on gender and entrepreneurship, Griselda's entrepreneurial journey was kick-started by the birth of her son. She is therefore very passionate about supporting parents and women and works closely with organisations that champion and advocate for increased female entrepreneurship, leadership and empowerment. An author, she writes on a variety of personal development and business topics for various publications, she also periodically guest lectures on entrepreneurship at universities.

Recently named one of the Top 100 'Yorkshire's Leading Women' by The Business Insider Publication, Griselda is also a lecturer, trainer, media commentator, STEM Champion and a mother of two beautiful children. She is extremely passionate about positively impacting the future of women and girls in the workforce. Griselda sits on the Advisory Board of Leeds Beckett University Law & Business School, she is a resident Fellow at Lancaster University, an Enterprise Ambassador at Leeds University and voted one of 100 Leading Women in Yorkshire.

## ABOUT FL

FL (Forward Ladies) is a 20,000-strong (and growing) UK-based professional women's network; that also works with progressive companies wanting to maximise the potential of their female talent. Forward Ladies is the most diverse and inclusive network of its kind.



## ABOUT JESSICA OKORO (FRONT COVER PHOTO)

Jessica Okoro is an award winning business consultant. She previously studied Pharmaceutical and Cosmetic Science at De Montfort University, where she overcame her own learning difficulties around using traditional teaching methods. Through developing her own learning resources and using informal methods at home, she went on to achieve higher than expected grades in her final Science and Mathematics exams. Once she managed to get into university to study her degree, she then became very interested in the way STEM (Science, Technology, Engineering and Mathematics) was introduced and taught in schools. This was her motivation in starting BeScience STEM a multi-award winning organisation which gets the whole community engaged in STEM using innovative and creative techniques. Her charity has had over 700 volunteers and engaged with 10,000+ people in the community. Her work has been endorsed by the likes of the Prime Minister and has enabled her to guest speak and share her ideas worldwide. As well as managing the charity, she consults for other charities and small organisations.

# STEM INSPIRED LEADERSHIP PROGRAMME

**Join forces with FL to  
develop female STEM leaders within  
your organisation.**

“

Yet again feeling hugely inspired & motivated after a day with the Forward Ladies. Cannot praise this programme enough. Thank you Sage UK for supporting and providing a platform for women in STEM to excel.

”

Lisa Reed, Sage UK

**For further information about Forward Ladies  
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VERSION #2

Download a copy of our STEM Report 2018 here: [forwardladies.com/stem-survey/](http://forwardladies.com/stem-survey/)

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