Hiring for Equity in Clean Energy

How energy SMEs can attract, retain, and advance female talent in digital jobs.

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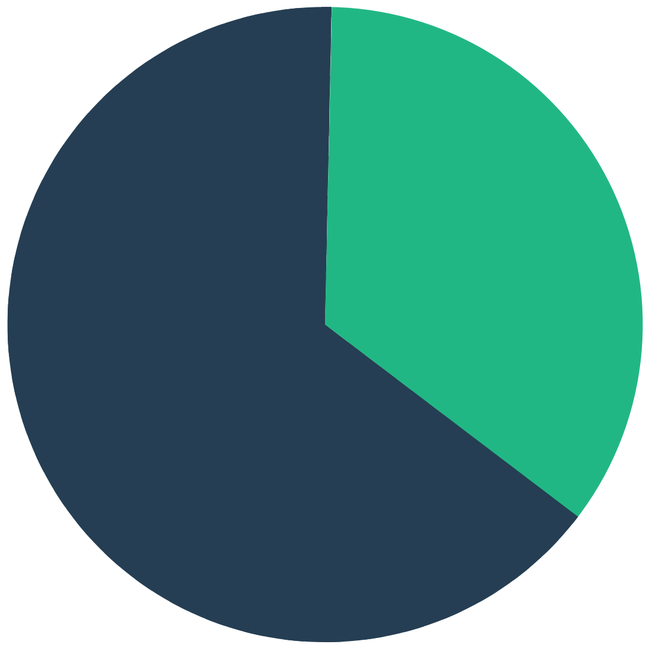
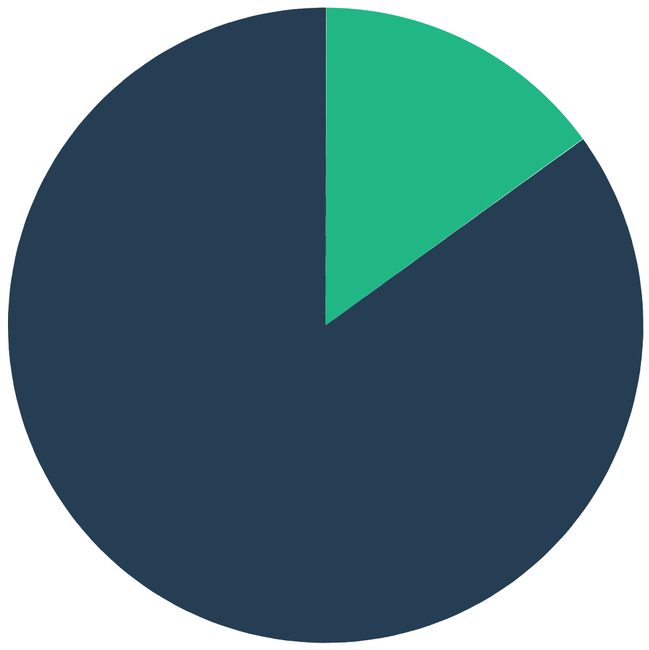
While gender representation in East African energy companies is increasing, women still make up a small portion of the industry's digital job workforce. As digital-dependent roles such as software engineers and data analysts become more central to business strategy in the energy sector, it is critical that companies take action now to increase gender diversity and inclusion in digital roles and ensure that this imbalance does not become ingrained.



35% of young professionals in Kenya in data roles are women



15% of young professionals in Kenya in software development roles are women

The increasing number of roles that require advanced digital skills in the energy sector provides a unique opportunity to improve gender diversity. It will not be easy, but there are actionable and proven steps companies can take to create meaningful change in increasing gender inclusion and diversity and ultimately support greater growth in the sector and expand access to energy:

1. Measure current status of gender diversity and inclusion, set targets, and track results.
2. Get buy-in from senior management to formalise targets and build accountability measures.
3. Revamp hiring processes to attract top talent, remove bias and build your pipeline.
4. Offer location and time-based flexibility as a benefit and retention strategy.
5. Sponsor and intentionally develop top female talent.

Part 1

Gender-diverse companies generate more revenue

Recently there has been a push in the energy sector, particularly in off-grid, for gender diversity and inclusion across the value chain.

Funders like Shell Foundation, United States Agency for International Development, and the UK Foreign, Commonwealth and Development Office have made gender a core concern for this historically male-dominated sector. Additionally, many off-grid SMEs see gender inclusion as key to their growth and differentiation in the marketplace. The importance of gender inclusion is primarily driven by an understanding that women play an important role in, and are often most affected by, household energy consumption decisions, and are often the key customers for energy products. As evidence continues to grow that more diverse firms are associated with better business outcomes, there is wide acceptance that gender equality is not only a moral imperative but also a commercial one.

A pilot undertaken by Value for Women found that women sales agents generated 45% more sales and 52% more revenue than their male counterparts with proper training.

Energy SMEs in East Africa are more gender diverse than energy companies worldwide.

While globally only 27% of full-time off-grid energy jobs are currently held by women, we found that women typically comprise ~45% of the overall workforce and 25% of senior management among impact-focused East African energy SMEs. Many of these companies have, either intentionally or organically, increased gender representation in their sales and customer support team. This had led to many East African companies reaching close to gender parity in their large customer-facing teams.

However, there is often considerably less gender diversity in digital jobs,[1] especially in roles that underpin technology development to expand energy access.

Energy sector growth has been facilitated by new digital technologies, including ones that underlie pay-as-you-go (PAYGo) service delivery models as well as utility optimisation. The digital transformation of the energy sector in East Africa follows a global trend; investment in digital electricity infrastructure and software increased by 20% from 2014 to USD 47 billion in 2016.

[1] In this report we refer to digital as interacting with digital technology: a digital job/role is one in which interacting with a computer is a core function of the job and a digital skill is some version of that interaction. The definition of digital roles is expanded on in Part 2.

Advances in gender inclusion are not keeping pace with the energy sector's digital evolution.

While many companies are getting closer to gender parity overall, gender representation across digital roles remains low. In the companies we spoke with, fewer than 30% of digital roles were filled by women and in some companies it was significantly lower than that.

Growth in digital-focused energy companies presents an opportunity and imperative to increase gender diversity and inclusion (D&I). Companies must take intentional action now to ensure that the current gender inequity in digital roles does not become an embedded norm as the digital sector matures.

Driven by increasing demand for energy supply from decentralised renewable energy business models, formal jobs in the sector are expected to increase 70% including 350,000 jobs sustained by the off-grid solar industry in East Africa by 2022. If gender imbalance in digital roles is not addressed now at the forefront of this rapid growth, it is more likely to become ingrained as the sector matures, making it significantly more challenging to change later. We see this in Silicon Valley where, despite years of commitment by companies to increase gender diversity, there is little improvement; in fact, in the U.S. the percentage of women in computing occupations has declined since 1991.

Growth in the East Africa energy sector presents an exciting opportunity to fully leverage the benefits of diverse digital teams, through intentional gender inclusive policies to attract, advance, and retain women in these roles.

This report identifies tools and techniques that energy SMEs can use to take actionable steps to increase inclusion and representation.

Through a mix of interviews with women working in digital jobs in the energy sector, off-grid energy SMEs, desk research, and A/B testing on the Shortlist platform, we've mapped the digital jobs landscape for the SME energy sector in East Africa and identified implementable solutions for companies to increase gender diversity.

In Part 2, we lay out the digital skills needs of the energy sector and current gender representation. In Part 3, we analyse the labour market available to fill these roles, including the gender breakdown of the market and what women are looking for when applying for a role. In Part 4, we provide actionable solutions for companies to attract, retain, and advance more women in digital jobs.

Methodology

Part 2

Energy companies need more talent with digital skills

Digital transformation is driving demand for software developers and data analysts, and for other digital roles across the energy sector.

New distribution models and optimised service delivery based on digital technology have been central to the disruption of the energy sector over the last decade. There is broad consensus that digitalisation trends will continue. The three interconnected trends we heard most commonly in interviews were:

1. Rise of smart meters and PAYGo models which typically rely on technologies enabling companies to turn on and off service remotely.
2. Applications that allow for supply chain integration including inventory management and customer relationship management (CRM) systems.
3. Business intelligence and optimisation of consumer data to scale.

The rise of machine learning and data optimisation for improved product offerings, customer care, and enhanced credit models are the newest trends and a function that many companies are just now starting to develop.

Types of digital work

Type of role	Description	Examples
Digital intensive	Job which are directly created through the production of ICT and through the intensive use of ICT	Mobile App Development
Digital Dependent	The digital technology enables work to such a degree that the job cannot be performed without the technology	Customer Service Call Centre Online Freelance Work
Digital Enhanced	The activity is facilitated by using ICT as a tool, but could be or used to be performed without the ICT tool	Graphic Design Accounting

High digital intensity

↑

Low digital intensity

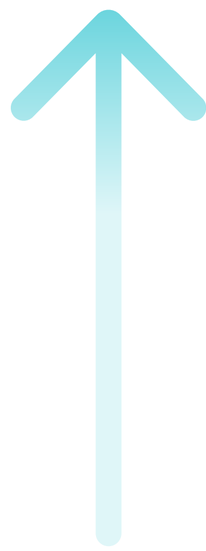
What started as a support function for companies has shifted to be central to business strategy.

One leading energy company spoke of their digital team's growth from only 2 engineers to 50 staff across the engineering, digital and IT teams within 5 years. This growth was driven

by the evolution of the business model, including the company's heavy investment in data as key to experiment and improve products and services (e.g., pricing and functionality). Another company is looking to hire more data analysts that can be embedded across non-digital teams to ensure that data helps drive and inform all business decisions. These trends highlight the newly created digital-intensive and digital-dependent work emerging in the energy sector. Of course, with increasing digitalisation of work and jobs comes an increasing need for a workforce with key digital skills.

Types of digital skills

Type of skill	Description	Examples
Advanced digital skills	Skills necessary to create, manage, test and analyse ICTs. They relate to technology development, network management, machine learning, big data analysis, IoT, cybersecurity and blockchain technology	Software Development Cloud Computing
Intermediate digital skills	Skills that enable one to use ICTs in more meaningful and beneficial ways. These are generally job-ready skills needed to perform work-related functions, such as desktop publishing and digital graphic design	Digital Marketing Social Media Marketing
Basic digital skills	Generic ICT skills required for nearly all digital jobs. They relate to the effective use of technology, including web research, online communication, use of professional online platforms	Using a keyboard Online search Sending emails



Given the centrality of digitalisation to energy companies, advanced digital skills are becoming critical to business success.

The energy trends outlined above translate into two critical advanced digital skills needs in companies:

- **Software engineers and developers** to design, troubleshoot, or improve underlying architecture. This can include **front-end, back-end, or full-stack engineers.**
- **Data scientists and analysts** to optimise processes and product offerings. Historically the principal need was for **business/data** analysts but increasingly companies are looking for people with data science backgrounds.

High demand for these two skills among all digital-advanced skills match broader market trends. Analysis of job descriptions of all digital-intensive roles across three job boards in Kenya found that 53% of roles were for software engineering and 16% for data jobs.

Common digital roles

Function	Type of roles
Data	Data Engineer Data, Business, Business Intelligence, Database Analyst/Administrator Statistician
Software Engineering	Front end / back end / full stack Mobile development (Android or IOS) DevOps Quality Assurance
Product	Product Manager/Lead Product Operations Manager Product Owner, Product Director
Sales Operations	CRM Specialist Sales Operations Specialist Sales Operations Analyst
Design	UX, UX/UI, HCD and Graphic Designers UX Researcher
Cloud Technologies	Cloud Administrator: Manages cloud services Cloud Developer: Designs and build applications in the cloud Cloud Architect: Advise stakeholders and translates business requirements
Cyber Security	Security Analyst, Engineer, Architect and Administrator Security Software Developer Cryptographer/Cryptologist and Cryptanalyst Cloud Security Engineer
Video Editing	Video, Film and Television Studio Editors Broadcast and Sound Engineering Technicians Multimedia Artist and Animator

Some companies struggle to attract top, young talent due to a perception that there are not many growth opportunities in digital roles in the energy sector.

Given that the energy sector was not historically digital-based, some companies note that top talent for digital roles are more interested in going to tech companies where they believe there is room for long-term career growth. The fact that digital teams in many energy companies are small and just 3% of digital-related job postings in Nairobi were for roles in the energy sector does not help bolster the case for significant long-term opportunities to grow within the sector. When looking for new digital roles, growth opportunities are a key assessment factor for young professionals. While there is a large pool of talent that has exposure to digital skills, employers often still struggle to find talent that can hit the ground running on day one. Investing in upskilling new employees takes resources that many scaling SMEs can't afford, making the ability to attract the strongest candidates even more critical.

Experiential learning is a proven gateway to full time employment

Solving the employability gap for young jobseekers will require a full suite of upskilling solutions, including improved education curricula, and technical, vocational, and soft skills training programmes. However, the feedback from over 700 employers across 30 countries who have worked with Shortlist to-date is consistent: there is no substitute for on-the-job experience. Shortlist has designed, developed and implemented a range of experiential learning programmes for young jobseekers, including graduate internships with digital mentorship components and structured leadership development initiatives for digital roles, and others. Results from these programmes are overwhelmingly positive, including data from one energy-focused programme in Sub-Saharan Africa supported by the UK FCDO showing a 92% conversion rate from work placements to full time employment. There is a clear and present need for greater subsidy to catalyse and scale up more of these youth employment programmes, in order to reduce the financial risk for employers to create new positions and hire young talent with limited real world experience.

While many companies noted the growing pool of entry-level and mid-level talent, several struggle to find talent for specialised roles given the nascent nature of the tech industry in East Africa.

Over the last few years, a proliferation of digital skills training programmes (highlighted more below) have helped to develop a large base of entry- and increasingly mid-level talent in Kenya. However, given the relatively new nature of digital jobs and these training programmes, companies noted that they find it challenging to hire managers: individuals who had both the technical skills as well as the soft-skills necessary to excel in management.

Companies struggle to find experienced product managers and quality assurance (QA) engineers as both are not common as discrete roles in East Africa.

One person we spoke to mentioned that since it's less common to have separate QA teams in East Africa (the function typically sits within the broader engineering team), she struggles to hire people with specific QA skills. Yet as her engineering team grows, having a dedicated QA team is becoming increasingly important. In many SMEs, there also haven't been dedicated product managers, with that role historically being played by others on the engineering or sales teams. Because it is a relatively new role in the market, it is hard to hire experienced product managers. In the U.S. over the last 2 years, demand for product managers increased by 32% compared to the market overall wherein demand for all roles increased by 6.6%. In Kenya, demand for product managers is also likely to expand as many digital-based SMEs grow and mature, making it even harder to hire for these roles.

> **A study on IT skills in Kenya found that even hiring managers did not fully understand the role of a product manager, often conflating it with a project manager.**

While we see an overwhelming trend in the market towards a shift to distributed teams, the level of adoption varies, with some companies committed to hiring from geographies in which they have offices, even for "hard-to-hire" roles.

Across the market there has been a steady shift towards hiring more remote workers. Covid-19 and the sudden, required pivot to remote work has certainly opened up most companies to explore flexible work options that they had not considered before. However, of the companies we spoke to, few are ready to go 100% remote or hire full-time staff in geographies in which they don't have offices. Concerns around asynchronous communication across time zones and a sense of identity of a East African company having an East African-based team have led companies to hesitate leveraging the global labour market for full time hires. Companies continue to rely on the labour pool in the developing digital ecosystem in East Africa.

Part 3

Advanced digital skills remain in short supply, especially among women

The number of people with degrees in digital skills in East Africa remains low.

Despite a growing demand for digital skills, the number of students graduating from universities with relevant degrees remains low. In 2020 fewer than 200 people (~2% of graduates) graduated from from the School of Computer Science at the University of Nairobi. Even among those that graduate, many companies highlight a mismatch between universities' curriculums and job market needs. For example, one of the companies that we interviewed mentioned that they struggled to find software engineers well-versed in product development on Android as this is not taught in Kenyan universities.

> **"I didn't learn about Power BI on campus, I didn't know Excel could do some of the things it does...I don't feel like campus gave me the opportunity to delve into the skills needed for the market and develop a career path."**
>
> Female data analyst

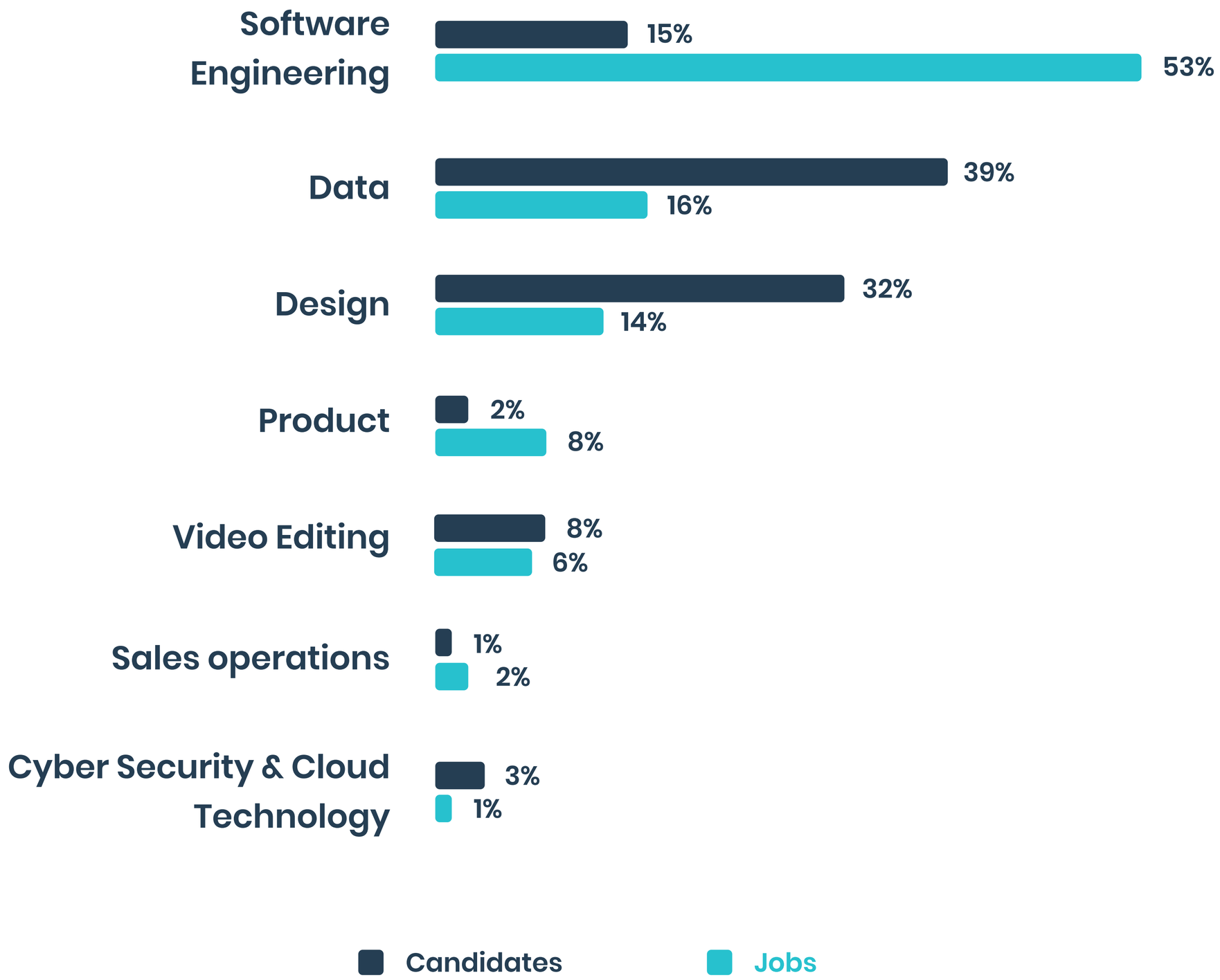
To address the lack of work-ready skills among graduates, many technical training solutions have emerged.

Shortlist's mapping of upskilling training options includes 18 with technology-focused programmes; these include Andela, Moringa School, ALX and Akirachix which offer targeted training to entry level professionals on software development and data analysis. Programs like Refactory in Kampala specifically work with companies to design a curriculum based on industry standards and needs to train tech talent. However, these programmes still only reach a small number of people; Andela admitted over 20 cohorts of 12-15 developers each before training closed, while Akirachix has graduated 247 women since 2010.

Many of the job candidates for digital jobs are entry to mid-level programmers, designers, and data analysts.

These roles are becoming increasingly critical in the energy sector, as they drive improved product offerings and underpin enhanced credit models, among other applications. While only some companies mentioned struggling to hire software engineers, the fact that 53% of job postings were for software engineers but only 15% of candidates reported having those skills highlights a potential remaining mismatch between skills and jobs. Conversely, while 16% of jobs were for data-focused roles (typically for energy companies this is business/data analyst roles), 39% of job candidates have a self-reported data background.[2]

Distribution of digital jobs candidates on LinkedIn vs distribution of advertised jobs on job boards in Kenya*



***Note that this analysis is based on self-reported skills. For example, the data suggest that there is a surplus of data and design talent, as evidenced by individuals who self-report to have those skills. However, employers clearly indicate that they struggle to find talent in these functions with the level and quality of expertise needed to meet their needs. This points to a potential significant gap between actual employer skills requirements and the skill levels that candidates actually possess.**

[2] The demand analysis looked at skill requirement and function classifications of job descriptions for roles posted in Kenya on three job boards and the candidate analysis looked at role function based on classifications of current job titles of Kenyans with 0-4 years of work experience.

Among candidates in data roles, the most common by far are data analysts (59%), followed by business analysts (19%), but applicants with more technical skills such as data scientists were far less common. As noted in the section above, companies indicated product managers were challenging to hire for and while 8% of jobs were product-focused, just 2% of candidates were in product roles.

Women are significantly underrepresented across degree programmes but there are intentional efforts by complementary programmes to admit women.[3]

There are few women enrolling and graduating in courses relevant to digital jobs from universities; less than 22% of students graduating with a Bachelors in Computer Science at the University of Nairobi in 2020 were women. One woman with a degree in computer science we spoke with stated that she felt grateful that her parents supported her choice of degree as many of her peers were not so lucky, and she had friends that ultimately chose non-STEM degrees due to family pressure. In 2016, only 18% of participants enrolled in the Software Engineering programme at Andela were women, and in 2017, only 25% of students enrolled in different programmes at Moringa School were women. In an effort to address these challenges, some organisations have taken measures to drive enrollment of women into these programmes. In 2017, Moringa School held its first women-only bootcamp and subsidised its fees by 50%, while Andela admitted an all-female cohort to encourage inclusivity. Additionally, there are female professional networks to ensure mentorship and peer support including Microsoft's WISE4Afrika at Strathmore, Women in Tech - Nairobi, and Women in Data. However, these networks still remain small; one woman we spoke to noted that Women in Tech was getting so few attendees at events that they decided to open it up to men as well.

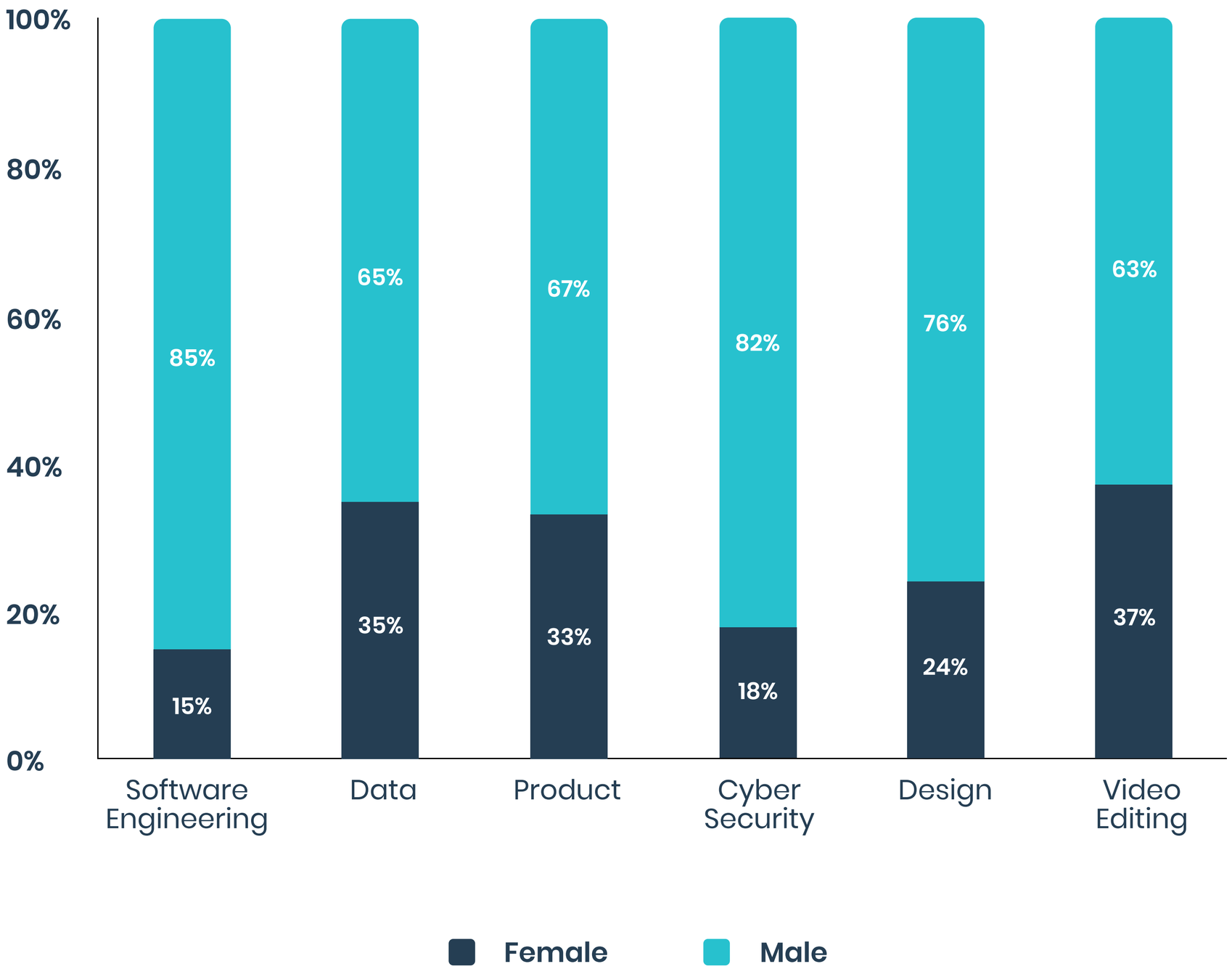
While efforts are underway to increase the pipeline of qualified women candidates, the sector continues to be male-dominated.

Data from LinkedIn candidates highlight the gender disparity in young professionals in digital jobs. Among candidates with 0-4 years of experience in data, just 35% of them were women, which is relatively high compared to software engineering where just 15% of candidates are women.

<22% of computer science major at UoN are women; one grad stated that she was grateful that her parents supported her choice of degree as many of her peers were not so lucky.

[3] To fully address the issue of the skewed pipeline and societal norms that lead to occupational segregation, actions at the household and school level are necessary, but in this report we are focusing primarily on the actions the private sector can take given the skewed pipeline.

Gender distribution of candidates for digital roles in Kenya[4]



Despite the skewed pipeline with more men than women in the talent pool, the women applying to digital jobs are as qualified as the men.

Among digital jobs recruited for by Shortlist, women and men had comparable years of experience, with women on average having 3.9 years and men having 4.4 years. Women were slightly more likely to have a technical Master's degree (5.1% for women as compared to 4.7% for men) and less likely to have a technical undergraduate degree (16.6% for women and 23.8% for men). Similarly among young professionals working in digital roles that we surveyed, 10% of men received their degree or training in a non-digital field; however among women, 42% had a degree in a non-digital field. As we heard mentioned in interviews, often degrees or "papers" in digital skills are not the best indicator of success in a role and tasks or assignments that assess competencies needed for the job are a better indicator of success.

Women and men who apply to digital jobs have similar qualifications.

[4] Sample size for Sales Operations and Cloud Technology were too small to measure gender distribution.

While women and men had similar qualifications, current and expected salaries vary significantly. Yet, young professionals working in digital jobs stated they are most concerned about finding a job that provides growth opportunities and makes a difference in the world.

Current average salaries were 7% higher for men, and expected annual salaries were 9% higher for men across digital jobs. This disparity is comparable to that in other countries, such as in the US which has a salary gap of 8% in Computer and Mathematical occupations, where most digital jobs fall. Gaps of this size, in particular for entry-level jobs across the sector are problematic as they are likely to compound, leading to larger divergences later in a person's career. These disparities could also be indicative of historic salary gaps that women have experienced, such that they set their expectations lower. Addressing the gender pay gap will be critical for increasing gender diversity through improved efforts to attract and retain women (gender pay gaps are explored in more detail in Part 4).

However, also ensuring employees feel that they are making a difference will play a key role in attracting and retaining women in digital roles. Results from our survey of young professionals in digital jobs reveal that making a positive difference in the world and opportunities for growth were things that most people looked for in a new job. While 50% of young professionals rated good benefits as one of the top three things they are looking for, only 18% said that "high paying" was a top consideration.

Top considerations of job characteristics

% of candidates that indicated characteristic was one of top three things considered when looking for a new job

While typically men and women look for the same job characteristics, women are more likely to value flexibility in where they work.

As we know, family obligations disproportionately fall on women, and flexibility enables women to meet those demands without compromising their work. Covid-19 has highlighted just how many jobs can be done remotely, or at least with more flexibility in working locations. Considerations for these specific and complex gender norms can help to start to find ways to increase gender diversity and inclusion in the workforce.

> **"I didn't know about off-grid, I was just looking for employment. I've learned, this space, it is about making people's lives easier - giving the opportunity to have light."**
>
> Female data analyst

Part 4

Actionable steps companies can take to attract and retain women

Most impact-focused companies we spoke with want to increase gender diversity, but often don't know where to start.

SMEs face a number of challenges in making gains especially within what is often a resource-constrained environment. Challenges range from a skewed pipeline to implicit bias, a complex web of gender norms, and even explicit bias.[5] Of people hiring in Kenya that assess personal characteristics in recruitment decisions, 60% said they would prefer to hire a man versus a woman. In addition, employers who believe there are differences in skills between men and women believe men are better at 8 out of the top 10 skills needed in white collar work. Up against this range of challenges, there are actionable steps for companies to work towards gender equity. While there is a long list of potential solutions, below we've outlined the top five evidenced-backed ways for SMEs to start tackling these challenges.

1. Measure current status of gender diversity and inclusion, set targets, and track results

Perceptions can be deceiving; in companies where 1 in 10 executives were women, 50% of men thought women were well represented. Data are a powerful tool to start the conversation about change and below are a few, easy-to-measure data points that can be used to measure where the company is today, set annual targets, and continue to track each year.

[5] Bias encompasses discriminatory behaviors or merely attitudes based on assumptions, stereotypes, and prejudice, and can be explicit (i.e., a clearly stated preference for one gender) or implicit (i.e., unconsciously affecting choices and actions).

	Metric	Your company data: Current status	Your company data: 12-month goal	Kenya Benchmark	Ultimate goal
Representation Find where in your organisation women may be underrepresented and where the other solutions below may need to be more targeted.					
Board members	% of women.	[Insert your current %]	[Insert your 12-month goal]	**23%** (Energy SMEs in East Africa) **23%** (Kenyan listed companies)	**50%** | Women
Top leadership		[Insert your current %]	[Insert your 12-month goal]	**25%** (Energy SMEs in East Africa) **36%** (Kenya listed companies)	
Employees by level		[E.g., Mid level management, entry level staff]	[Insert your 12-month goal]		
Employees by function/ business units		[E.g., Software Engineering, 10%]	[E.g., Software Engineering, 30%]	**30%** for digital jobs in energy companies	
Pay Make sure you're paying your female employees the same as men for comparable work. See the text box below on how companies can easily introduce a wage gap without even realising.					
Adjusted gender pay gap	KES women earn for every 100 KES men earn in comparable jobs. This guide provides great step-by-step instructions for calculating the wage gap.	[Insert your current %]	[Insert your 12-month goal]	KES 93	100
Recruitment Identity where in your recruitment pipeline women may be falling out and better target the recruitment solutions outlined below. Differentiating by function and level can give a more granular level of understanding.					
Applicants	% of women.	[Insert your current %]	[Insert your 12-month goal]	~20% for digital jobs	Will vary significantly based on labour market realities
Shortlisted	Ratio of female applicants that are shortlisted to male applicants that are shortlisted.	[Insert your current %]	[Insert your 12-month goal]		**50%** (or higher)
Interviewed	Ratio of female candidates shortlisted that are interviewed to male candidates shortlist.	[Insert your current %]	[Insert your 12-month goal]		
Offers	Ratio of female candidates interviewed that are given offers to male candidates interviewed that are given offers.	[Insert your current %]	[Insert your 12-month goal]		
Retention & advancement Identity where in your company women may be exiting at higher rates than men to better target solutions. Differentiating by function, level, and age can give a more granular level of understanding.					
Retention	% of employees that left the company in the year that were women.	[Insert your current %]	[Insert your 12-month goal]		Equal to company gender split (or lower)
Advancement	% of employees promoted in the last year that were women.	[Insert your current %]	[Insert your 12-month goal]		Equal to company gender split (or higher)
	% of employees nominated for / included in trainings for other programmes for high-potential employees that were women.	[Insert your current %]	[Insert your 12-month goal]		
	Breakdown of average years for promotion to next level by gender.	[Insert your current %]	[Insert your 12-month goal]		
Engagement	Breakdown of any engagement / pulse survey data by gender. This blog post has some great survey questions you can add specifically to measure D&I.	[Insert your current %]	[Insert your 12-month goal]		No difference between men and women

Finding great women to join your board

The evidence is indisputable that greater gender representation on boards leads to better business outcomes. Energy SMEs active in East Africa, on average, have just 23% representation of women at the board level, and 1 in 3 companies have no women on their board at all. While this is a higher representation than the 16% found in large utility companies, it still leaves room for significant improvement. One energy company co-founder noticed that his all-male leadership team and all-male board was leading to a company culture that wasn't unlocking the full potential of the company, including reducing their ability to attract great female talent. He invested resources and time to change this and found a highly qualified senior female leader to join his management team and a seasoned female industry executive with significant board experience to join his other 4 board members. He noted the immediate improvement this made to his board's effectiveness, and expressed confidence in the positive, lasting impact this will have on the company as a whole.

In a move to help more companies, The Boardroom Africa is an organisation dedicated to working with companies to help place female African leaders on boards, as well as providing training and support to these women to further develop their ability to contribute.

How wage gaps can unwittingly emerge

No one sets out to create a gender wage gap but they often emerge and are persistent due to other social norms. While an unadjusted wage gap likely exists in all companies due to the lower representation of women in leadership and technical roles, which are often higher-paying, adjusted pay gaps that take these differences into account are also widespread. They usually arise from a few key factors:

1. Past wage gaps - if women historically earned less than men that can be taken forward into new jobs. Looking at young professionals working in digital jobs who applied through Shortlist, men are earning 7% more in their current role than women.

2. Expectation and self-promotion gaps - it is well documented that women tend to be less confident than men even if they are as capable and often ask for less either when starting a new job or asking for a raise. Among women who applied through Shortlist roles, men's salary expectations were 9% higher than women's.

3. Negotiation gaps - women are less likely than men to negotiate salaries and when they do, they can be penalised for asking in ways men are not.

A few ways companies can start to address gaps and reduce their likelihood of them emerging include:

- Don't use a candidates' salary history or expectations to determine your offer.
- Blind salary information in the recruiting process; instead of asking people about their salary expectations, tell them what the position pays.
- Have salary bands for all positions.
- Increase transparency including sharing bands within the company and salary expectations on job descriptions. Women are as likely as men to negotiate salaries if the JD explicitly indicates that salary is negotiable.

2. Get buy-in from top leadership, formalising targets and building accountability measures

Measurement and target setting can start the conversation but to ensure accountability and real change, those targets should be formalised into commitments to which top leadership is held. Real organisational change - which D&I requires - must be championed from the top. It may sound obvious but it is a critical step that is often overlooked. One company we spoke to noted that they report on an annual basis to their investors the percentage of female new hires and percentage of female top leaders, setting new goals each year. They said that these commitments, alongside leadership buy-in for their importance, have helped create a culture in which people are passionate and excited about increasing diversity.

In cases where buy-in needs to be generated, think about four key tenets:

1. Leverage research highlighting that diversity improves the bottom line and bias is real.
2. Use stories from employees to highlight how D&I will further company goals.
3. Know what you're asking for, whether that's budget or just public and vocal support for D&I.
4. Track key performance metrics (sales, revenue, etc.) linked to gender inclusion as your company builds its internal data to reinforce buy-in from the board.

Critical to the buy-in process is making sure that gender diversity is not seen as just an HR and compliance issue or just a women's one. Efforts led by male champions who use their relative power to uplift and empower women can be incredibly powerful tools; 2020 was the UN's HeForShe's year of male allyship.

3. Revamp hiring processes and remove bias to build your pipeline and attract top talent

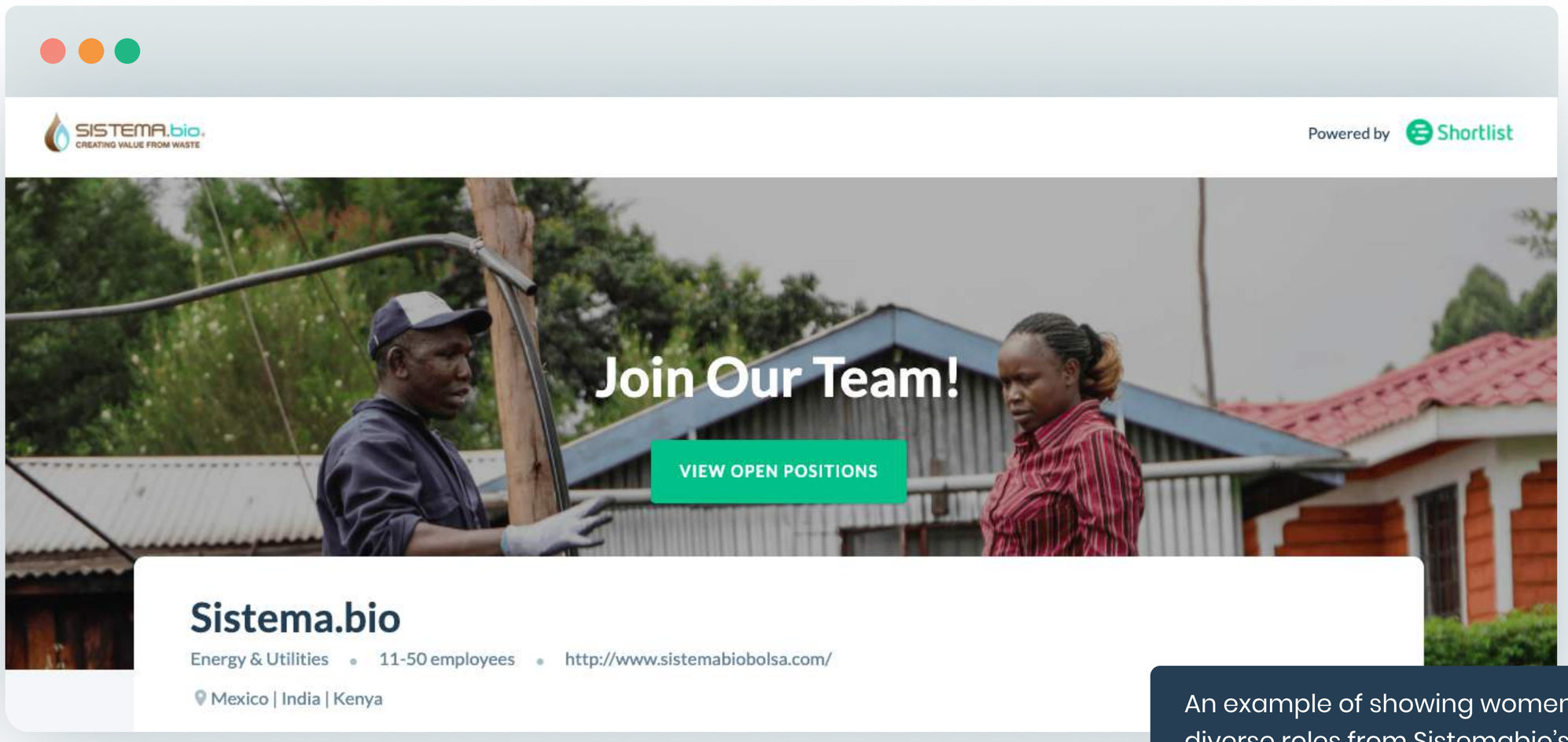
In addition to skewed pipelines, some common hiring practices can introduce bias into the hiring process and result in fewer women applying to jobs and ultimately succeeding in being hired. There are somestraightforward steps that all employers and hiring managers can take to minimise bias and make sure they're able to attract and hire the best talent for their needs.

3a. Outreach

Intentionally leveraging numerous outreach channels, including the company website, job descriptions, and presence at career fairs, can help close the gender gap in hiring. As discussed above, women seeking digital jobs in the energy sector are looking for growth opportunities and making a difference in a field they care about. Company outreach (whether passive, through the website or job description or active through career fairs and recruiting) is the first place that candidates are exposed to the culture of your organisation. Therefore it is important to utilise outreach to help emphasise benefits, perks, and other components of the job that may encourage women to apply as well as to demonstrate the company's diversity; for example:

i. **Feature a range of employees on the company website:** Ensure that team and company photos represent the diversity of your workforce. Below are some examples from Shortlist's company pages:

An example of staff diversity from Mkopa's landing page on the Shortlist platform



An example of showing women in diverse roles from Sistemabio's landing page on the Shortlist platform.

ii. **Remove gendered language:** Research shows that women are less likely to apply to jobs if the job description includes gendered language (i.e., words associated with male stereotypes, such as "dominance" or "aggression"). In order to avoid this, employers should:

- Check the pronouns included in the job description and make sure they are inclusive and use terms like “they” or “you”.
- Use this simple and quick tool to assess if your job description includes words that could deter women’s applications and diagnose sources of bias.

iii. **Trim down requirements to only the most important ones:** In general, women tend to only apply to jobs if they meet 100% of the requirements, while men are more likely to apply to a job if they meet only 60% of the requirements. On LinkedIn, women apply to 20% fewer jobs than men. Employers can help make sure women are encouraged to apply by narrowing down the skill-sets that are most important for the job and only including those in the job description, and explicitly stating that you’re open to a range of backgrounds and experiences and encourage people to apply.

iv. **Prominently include language showing your active support for gender equality.** Evidence has shown that even something as simple as the presence of an equal employment opportunity (EEO) statement increases the attractiveness of the organisation to women. While many of the companies we spoke to put a passive statement at the bottom of the job description indicating they do not discriminate based on gender (or other demographics), none use active statements.

Adding a simple line in the job description committing to gender equality increased female applicants by 40%

Evidence in Action

Case Study: Shortlist's testing of job description language to increase female candidates

Once women submit their application they do as well as men on the Shortlist platform, so to improve female representation, it is critical to increase the number of women applying to energy jobs -- widening the pipeline. Extensive work demonstrates that the way in which the job is described or presented in a posting, as described above, is crucial. However, much of this research was conducted on Western job boards, and there is little evidence yet on the effectiveness of these approaches in East Africa.

To test potential light-touch but high-impact solutions to increase the number of women applying to off-grid energy roles, we utilised this base of research to create A/B tests.

In A/B testing, two versions of a job description are circulated. Version "A" is the original job description, and Version "B" includes a slight alteration that tests a particular set of words or phrases that we hypothesized could attract more women. The descriptions were circulated in a controlled timeframe with sample sizes that allow for determination of statistical significance. Data was collected and compared on application trends between the two versions. Beginning in March of 2020, we ran a series of A/B tests, randomising the job descriptions displayed to 50% of applicants.

On three job descriptions for BURN, we tested the addition of the line "BURN is committed to gender equality in the workplace. Women represent 60% of BURN's workforce." Including this in the job description increased women starting applications by 40%, with no decrease in the number of male applicants. We also tested similar language with Koko Networks, except noting that "The Koko workforce is currently 40% women and looking to grow!" Data from this test showed that a statistically significant higher proportion of women started an application through Version B (56%) which included this additional language as compared to Version A (50%) which made no mention of gender equality. Companies with good gender representation should continue to advertise their gender breakdown and measure female applicant rates to assess the effect on applications.

In the future we hope to test if including growth rates in female representation is also effective in increasing the number of female applicants, and are in the process of refining a “nudge” using Shortlist’s Chatbot tool to encourage more women to complete their application.

v. **Think outside the standard applicant pool:** While online recruiting is exceedingly common, especially for digital roles, it’s important not to rely solely on passive digital recruiting. Research using Shortlist’s data in India found gender differences in recruitment channels, with the Shortlist platform more effective in attracting women to apply when there was specific and targeted outreach. To diversify the hiring pipeline, employers can:

- Use online directories, such as that from Women in Tech, to support recruiting efforts.
- Reach out to women specifically through LinkedIn or other networks to encourage them to apply.
- Rely more on campus visits, career fairs, and other in-person recruitment efforts to expand the pipeline of female talent.

3b. Evaluation

Representation continues to be important through the evaluation process, when candidates gain deeper understanding of the organisation. Additionally, evaluation is where implicit bias can be more likely to factor into decision making. In order to ensure you're able to attract top talent:

i. **Make sure you have female representation in the hiring and interview process:** One woman we spoke to accepted her role at M-Kopa over another offer because her first round interview included multiple women, including a female manager in a digital job. She said that "seeing a female manager [in the interview] was so empowering".

ii. **Use unbiased skill-based assessments to evaluate applicants:** Implicit bias is hard to recognise and account for, and can creep into the hiring process without hiring managers realising. Employers can avoid measuring applicants' potential with a biased lens by using assessments to measure relevant skills, and ensure that assessments don't measure gender-biased traits such as risk-aversion which is more common among women.

> **"...seeing a female manager [in the interview] was so empowering"**
>
> Female software engineer

Avoid a common pitfall; don't assume training is the answer -- Significant evidence shows that implicit bias trainings are some of the most expensive, least impactful ways to increase D&I. While they might be useful for introducing the concept to your teams and providing common terminology to use, they have not been shown to lead to any material change.

4. Offer location and time-based flexibility as a benefit and retention strategy

Globally, women often find themselves pushed out of the workforce by family obligations because the rigidity of set working hours or locations makes it difficult to balance family and work. Often with just a bit of additional flexibility, family obligations no longer become a constraint. One of the companies we spoke with mentioned that by providing at least one remote working day per week, mothers can spend time with their families while maintaining productivity at work. As noted above, women in digital roles are more likely than men to value flexibility, particularly in where they can work, when looking for a new job. [69% of highly educated women] who left their previous job, would not have done so if they had more flexibility where and when they worked.

Location-based

- **Work remote:** team members do not work from a set, communal office.
- **Distributed teams:** employees are based across different geographies.
- **Satellite structure:** company has small offices in distributed locations and employees can choose from which office they work.
- **Hybrid teams:** mix of employees working onsite in an office and remote employees.

Flexibility on when employees work is important. Many companies in Nairobi already allow people to adjust their working hours to avoid traffic. One company noted that they allow women with young children to report to work later or leave early, as long as they are ultimately able to complete their work. There are multiple ways to think about time-based flexibility, some of which are less common but could be a powerful benefit to offer employees, such as compressed work weeks.

Time-based

- **Flexible hours:** employees to set their own schedules each day with no standard hours; in some cases companies have a few hours designated in a day or week in which everyone is required to be online.
- **Compressed work week:** team members work 40 hours (or a set total) over a period of fewer than five days in a week.
- **Adjusted work hours:** employees can choose what their standard working hours will be.
- **Shift based:** like adjusted hours, employees choose standard hours but do so from a set of options.

The work-from-home shift that many companies had to make in response to Covid-19 has equipped these companies to better manage remote work. Many are now considering how to incorporate more remote work flexibility into their policies.

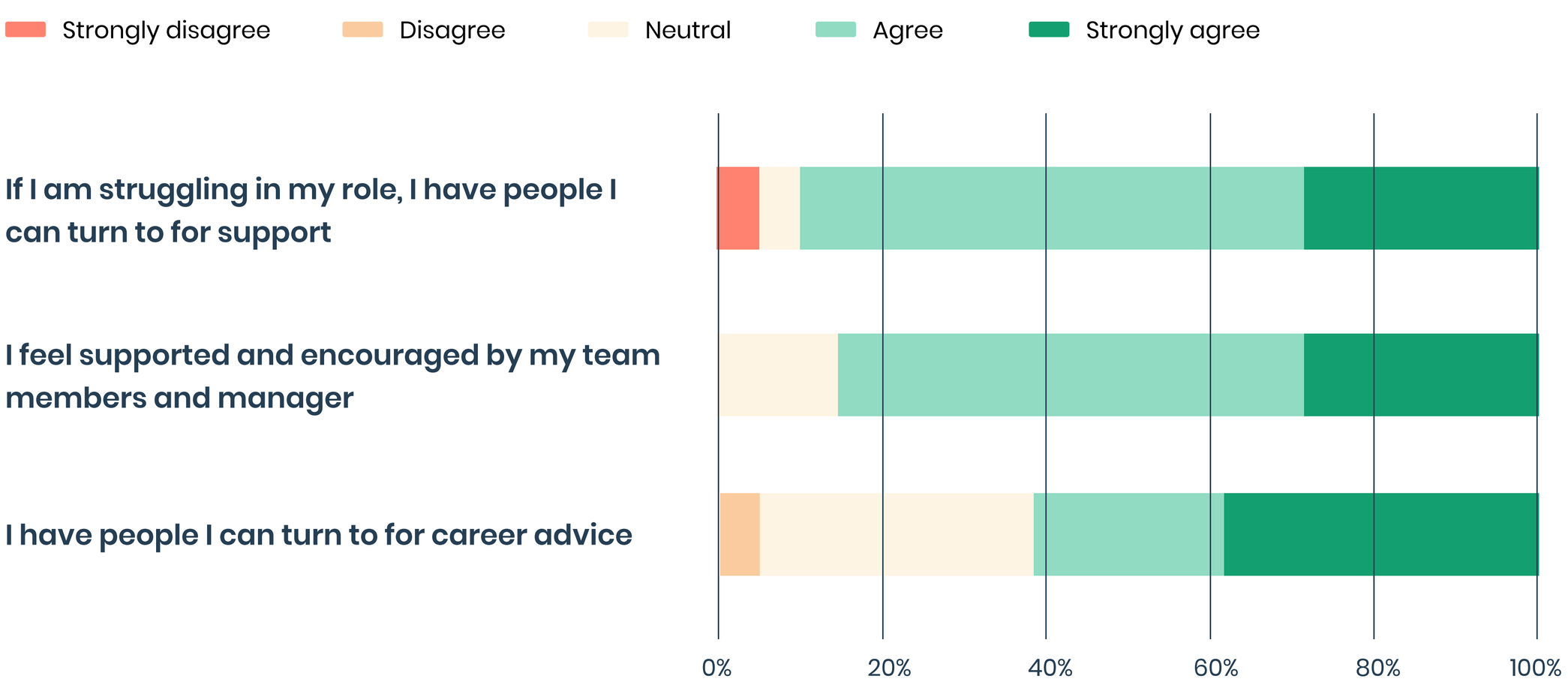
All the companies we spoke to currently offer flexibility in hours and location but 75% of them only started as a result of Covid-19. Companies have the unique opportunity to build more flexibility into their policies. As they weigh the costs and benefits of future working structures, the importance of flexible work arrangements in retaining women should not be overlooked.

Retaining top female talent also requires ensuring some basic policies (e.g., sexual harassment, parental leave) and thinking about physical spaces (e.g., expressing rooms, easily accessible female bathrooms). We haven't covered these in more detail here as all of the companies we spoke to already have these in place.

5. Sponsor and intentionally development top talent

Support high-potential women with career mentorship and ensure conversations are happening about the potential for career growth within the organisation. Men and women early in their careers in digital jobs in energy companies feel well-supported in their roles but don't feel they have people they can turn to for career advice. For technical and non-technical work-related questions, these young professionals typically turn to their peers in the company, in addition to the internet and managers for technical questions. However, for career advice, there was less of a consensus on people or places this group turned to for support. Close to 75% of women typically speak to a family member or friend working in the same occupation. As we know, clear career paths and perceived opportunities for growth increases employee engagement and reduces turnover.

Views of young professionals in digital jobs at energy companies regarding job and career support



To support career growth and ultimately increase advancement and retention, companies should actively promote sponsorship. A sponsor is a senior-level employee who acts as an advocate for an employee, and uses their own power and reputation to "go-to-bat" for their protégé. Women without sponsors are three times more likely to be on the verge of quitting and that with a sponsor, women in science, engineering, and technology roles were 70% more likely to have their ideas endorsed and 200% more likely to have their ideas implemented. More importantly, those with sponsors are more likely to be promoted and have increased confidence. A partnership study between Thomson Reuters and the Anita Borg Institute found that women participating in a career coaching programme were two times more likely to be promoted than a control group.

> **It's "up to me to prove every time that I am [capable]."**
>
> Female software engineer
> in the energy sector

Sponsors can also help women navigate the microaggressions they are likely to face, particularly in male dominated digital fields. Microaggressions or "the everyday, subtle, intentional — and oftentimes unintentional — interactions or behaviors that communicate some sort of bias toward historically marginalised groups" are commonly faced by underrepresented groups. Typically this can look like:

Table adapted from Gender-Based Microaggressions in STEM settings

Microaggression	Underlying gender stereotype
A woman is expected to adopt female stereotypic roles (e.g., being the secretary), whereas men adopt leader or technical expert roles.	Women primarily support men's work in the digital field and should take on roles that are considered to align with their assumed skills.
A woman's idea is ignored, yet accepted when repeated later by a man.	Men are more credible sources of good ideas in digital roles than women.
A woman is mistaken for someone in a lower level.	Women are not skilled in digital-advanced skills and won't be in high-level digital-intensive roles.
A woman engineer is told that she doesn't "look like" an engineer.	Only men are expected to be engineers.

A female energy software engineer told us that she could tell that people doubted her ability to deliver as a woman, and said it is "up to me to prove every time that I am [capable]." For a while even the person she managed would not take direction from her and one of her male peers had to intervene to provide instruction. Sponsors can leverage their relative power to help counter microaggressions faced by women and other underrepresented groups to ensure all voices are heard and respected.

Energy companies looking to develop their digital talent should ensure that women have sponsors that will advocate for them, promote visibility, give stretch assignments, and help navigate potential career paths. This includes:

1. Creating and fostering an environment that supports teaching and learning.
2. Starting small and increasing your sponsorship programme slowly.
3. Creating goals for sponsorship relationships and measuring progress.

Shortlist-led "Off-grid Talent Initiative" (OGTI) specifically targets and supports women to thrive in new roles

Through OGTI (an FCDO and Carbon Trust-backed talent programme) Shortlist is placing high-potential recent graduates into off-grid energy jobs. As of the end of December 2020, Shortlist has already placed 267 graduates in 25 companies across East and West Africa with 55% of the individuals placed being women. They achieved this gender result through a deliberate and planned strategy, combining targeted ads and outreach, the A/B testing described above, and nuanced data analysis by market and role to adjust their approach based on the specific pipeline realities.

Shortlist recognises that just placing high-potential candidates isn't enough. They started a mentorship and support programme to ensure that the talent placed thrived in their new roles. As part of the programme, Shortlist developed a Peer Support group which includes monthly (virtual) meet-ups in addition to resource sharing among the group members and from Shortlist. One of the resources Shortlist developed, in partnership with Powerful Women which works to increase gender diversity in the energy sector in the UK, is a guide for mentees and mentors including guidance on how women can identify and engage an impactful career mentor. Shortlist and its training partner, African Management Institute, are actively scaling this programme, demonstrating that this model for hiring and upskilling is in high demand throughout the energy access sector and resilient to the economic effects of Covid. More information is available here: www.shortlist.net/energy.

Illuminating the path forward

Energy SMEs in East Africa are already doing better than many of their global counterparts in terms of gender diversity. The growth of digital roles in the energy sector presents an opportunity for these companies to continue to stay ahead of the curve. Attracting and retaining the best talent has become an even greater priority as energy SMEs require more advanced digital skills to fill their roles. Companies will need more than just passive recruiting, bootcamps, and training programmes. The commitment to gender equality must start from the top, with buy-in from leadership to measure and formalise targets. Adjusting the hiring process will not only increase the number of female applicants but also ensure that these companies are able to hire and retain top employees. Providing clear career growth opportunities, sponsorship and mentorship, as well as offering location and time-based flexibility can help energy SMEs increase inclusive advancement and retention. Through a deepened understanding of the skills needed for digital jobs, as well as the tools laid out in this report, energy companies can avoid the pitfalls that other digital ecosystems have faced and ensure that gender diversity continues to not only be a priority but a reality.

Authors and Contributors

Layla O'Kane, Rachel Levenson (Open Capital), Eva Wacera (Shortlist), Genevieve Goulding (Shortlist)

About Shortlist

Shortlist is a leading talent company operating across Africa and India, connecting skilled professionals to great careers. With offices in Nairobi, Mumbai, and Hyderabad, Shortlist sources and screens high performing talent using proprietary technology and its team of recruitment professionals. Providing both executive search services and mass recruitment solutions, Shortlist has worked with over 700 employers globally, placed thousands of candidates into jobs in over 30 countries, and screened over 1 million candidates since launching in 2016. www.shortlist.net

About Open Capital

Open Capital is a management consulting and financial advisory firm that drives growth, enables investment, and builds markets across Africa. We help businesses, investors, development partners, and the public sector to identify opportunities and deliver unique, impactful solutions. Our mission is to advance African economies and build future generations of business leaders. Since 2010, we have completed 800+ engagements across 20 countries in Sub-Saharan Africa.
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Participating companies

Our sincere thanks to the companies listed below who participated in this research through interviews and/or A/B testing. Committed to gender equity, they shared best practice as well as current challenges in the continual process of improving diversity and inclusion.

Supporting Partners

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