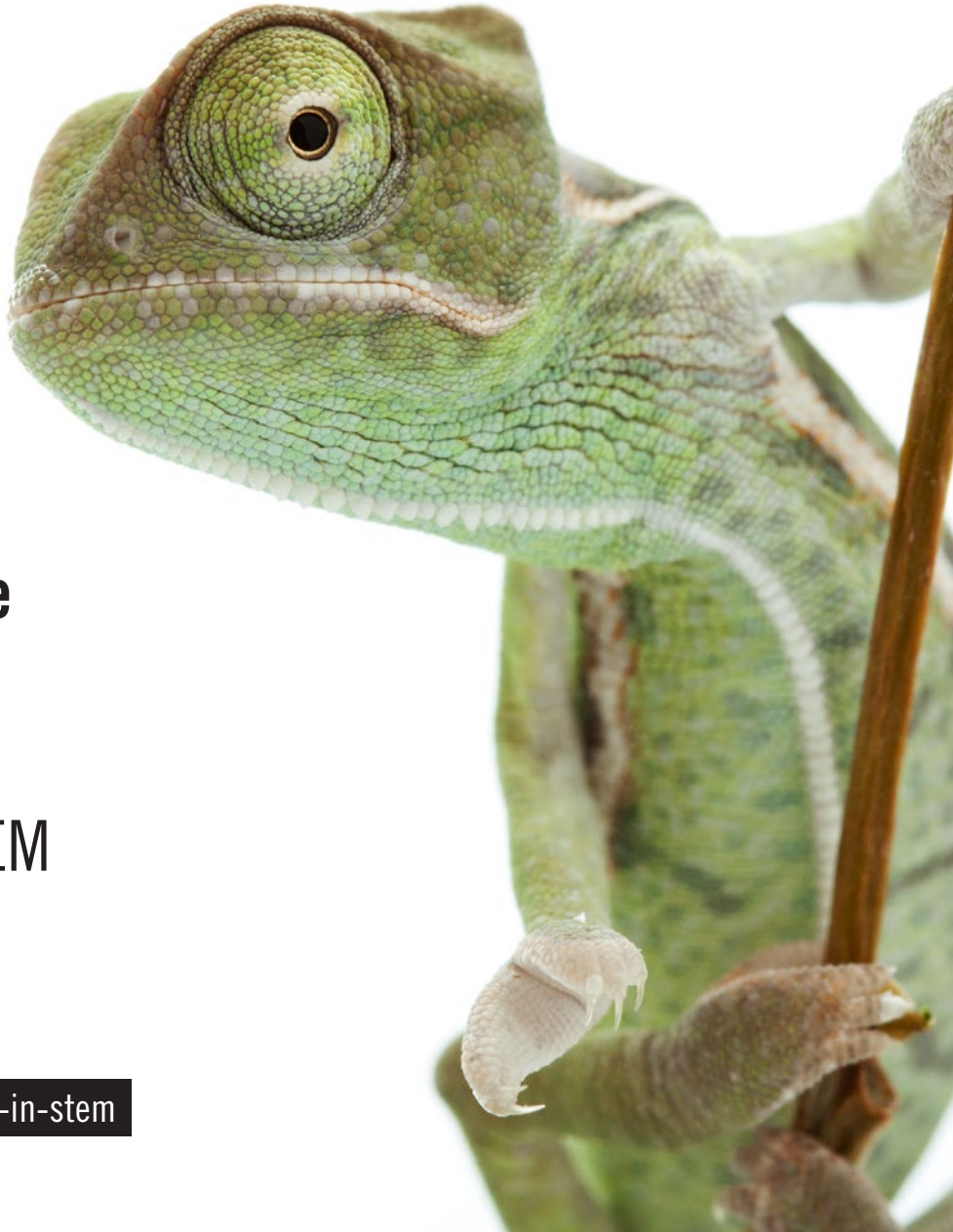
The Institution of Engineering and Technology

In association with prospect union for professionals

Progressing Women in STEM Roles



Best practice guidance for employers of women in STEM

www.**theiet**.org/women-in-stem

Lates
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ABOUT THIS GUIDANCE DOCUMENT

The IET and Prospect – working together for women in STEM

In early 2015, the Institution of Engineering and Technology (IET) and Prospect, the union for professionals, decided to work together to gain further insight into the recruitment, promotion and retention of women in Science, Technology, Engineering and Maths (STEM) roles and to champion the career progression of women in STEM.

We have focused predominantly on how to promote best practice, inclusion and diversity as key components of a strategic business agenda.

Driven by a growing body of research-based evidence, highlighting the relatively unchanged climate around the progression of women in STEM roles within the UK, the IET and Prospect hosted a conference: *Progressing Women in STEM Roles*, in March 2015.

In November 2015, the IET published the report, *Progressing Women in STEM Roles: Supporting a diverse, adaptable and talent-rich workforce*[1]. This report presented back the findings and recommendations of this collaborative effort to a wide range of representatives from industry, academia and government.

The report's recommendations included the development of guidance for employers, specific to the recruitment, promotion and retention of women in STEM roles. This guidance document has therefore been prepared in accordance with that recommendation.

The Institution of Engineering and Technology (IET)

The IET believes that the difficulty in attracting women into engineering is not solely a diversity issue, but an economic one – as the UK needs to find 1.82 million new engineers between 2012 and 2022. To tackle this, the IET offers a series of awards and scholarships, including the Young Women Engineer of the Year Awards to honour high-achieving female engineers who can also help to inspire the female engineers of the future. The IET also runs the UK's largest online career support network for female engineers – and works in hundreds of schools every year, reaching thousands of girls and young people generally, to promote STEM careers and subjects.

Prospect, the union for professionals

Prospect champions good work – our aim is for everyone to have the opportunity to do work that is enjoyable, stretching and fulfilling. Yet engineering and technology skills are thin on the ground at a time when Britain needs more good jobs in high-performing workplaces, to rebalance the economy and sustain fairer and stronger growth. These challenges will not be resolved unless we use all of the talent pool. Prospect therefore believes that we need a concerted programme of action to address the under-representation of women at all levels. We are committed to playing our part, in particular through practical action in the workplace.

REFERENCES

References:

1 Progressing Women in STEM Roles: Supporting a diverse, adaptable and talent-rich workforce (The IET, 2015)

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HOW TO USE THIS GUIDANCE DOCUMENT

The guidance in this document aligns to content in the preceding report, *Progressing Women in STEM Roles: Supporting a diverse, adaptable and talent-rich workforce*[2].

While it makes sense to review the report for its summarising and recommendations, it is possible to use the guidance in the following pages without doing so.

The guidance contained here is for suggested action - in particular, best practice for employers of women in STEM roles, but also for inclusion and diversity across the whole workforce.

There are four sections:

Making the change

Recruitment

Promotion

Retention

Each section follows the same format:

SUGGESTIONS FOR ACTION

EXAMPLES OF BEST PRACTICE (and not so best practice)

This is a Quick Reference Action Guide – we appreciate that it's a starting point and far from comprehensive.

To help you in your own quest to support women in STEM, therefore, you'll find plenty of references for further reading.

In the spirit of progress, we welcome your feedback and look forward to collaborating further with the business professionals, academics, policy makers and others who can make these important changes happen.

On behalf of the IET-Prospect collaborative alliance

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Alliances Development Manager, IET

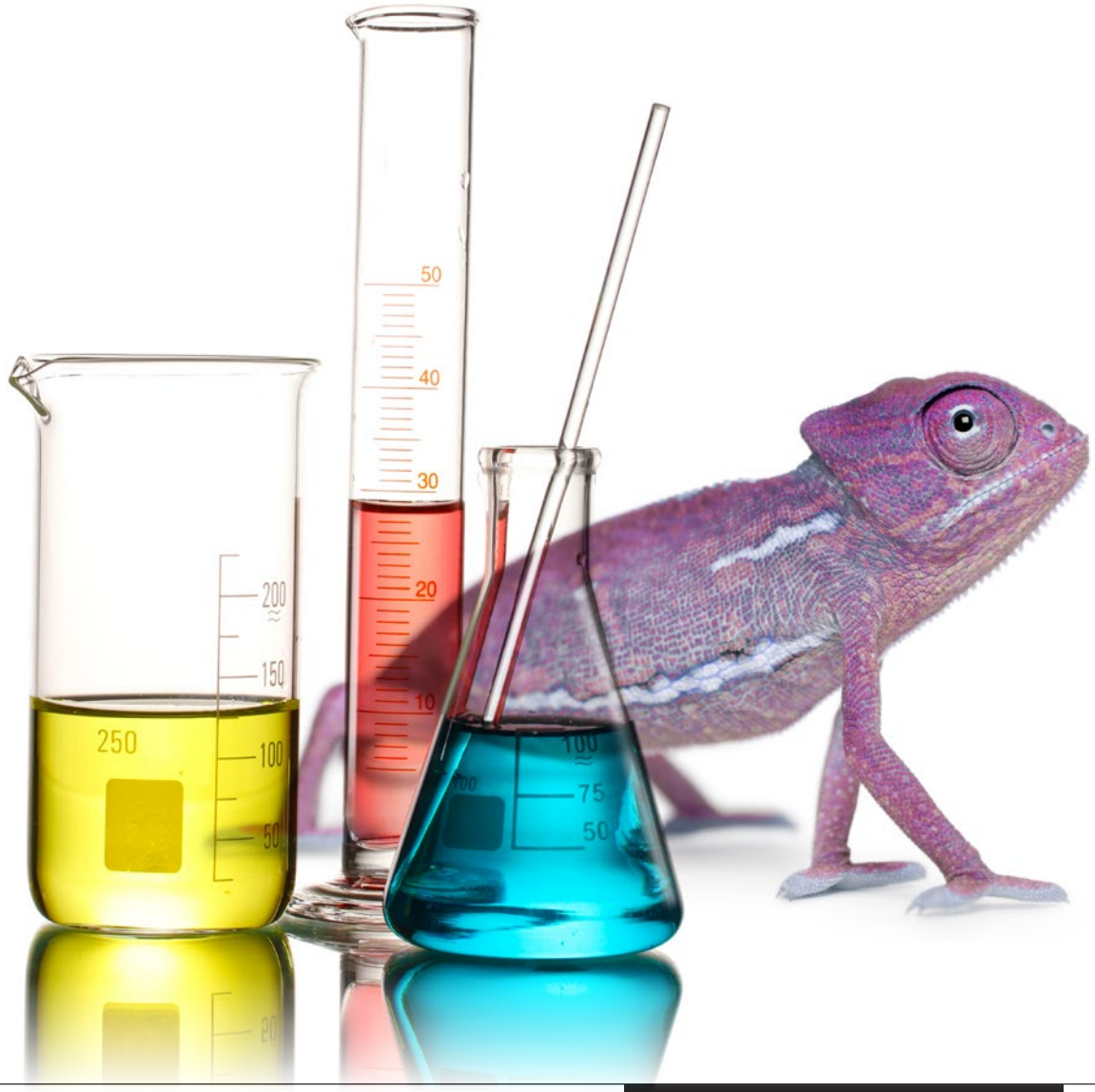
Denise McGuire
Vice President, Prospect

REFERENCES

References:

2 Progressing Women in STEM Roles: Supporting a diverse, adaptable and talent-rich workforce (The IET, 2015)

1. Making the Change



"A Forbes study, Fostering Innovation Through a Diverse Workforce, has identified workforce diversity and inclusion as a key driver of internal innovation and business growth[3]."

1.1 CONDUCTING A POLICY AND PROCEDURES REVIEW

Supporting an organisation to question what it is doing with regard to diversity and inclusion establishes a framework for monitoring and evaluation.

SUGGESTIONS FOR ACTION

Conduct internal investigations of an organisation's status through:

- Regular surveys and audit *(employee satisfaction, culture, inclusion, diversity).*
- Equal pay reviews.
- Employee profile *(gender, age, ethnicity).*
- Strategic KPIs and corporate policies and agreements – *do these integrate diversity/ a balanced scorecard?*

EXAMPLES

League tables for equality and diversity:

- The Sunday Times 100 best companies to work for
- The Times top 50 companies and specialist lists
- Great Place to Work®
- Opportunity Now: Gender and Wellbeing Benchmarking Survey and Awards
- WISE Awards
- Royal Academy of Engineering Diversity Leadership Group
- *C2E Equality Standard* (by Committed2Equality)[4]
- *Athena Swan Charter* (by Equality Challenge Unit)[5]
- *Project Juno* (Institute of Physics)[6]
- *Think, Act, Report*[7]
- *National Equality Standard* (by EY)[8]

REFERENCES

Further reading:

Royal Academy of Engineering: Implementing diversity policies: guiding principles
http://www.raeng.org.uk/publications/other/implementing-diversity-policies-guiding-principles

European Commission: checklist for diversity management
http://ec.europa.eu/justice/discrimination/files/checklist_diversitymanagement_en.pdf

References:

3 www.forbes.com/forbesinsights/innovation_diversity/index.html **4** www.c2e.co.uk **5** www.ecu.ac.uk/equality-charters/athena-swan **6** www.iop.org/juno **7** www.gov.uk/think-act-report **8** www.ey.com/UK/en/Home/National-Equality-Standard

1.2 ADDRESSING WORKPLACE CULTURE

Helping the whole organisation understand why including and engaging female candidates and male and female employees is critical to long-term success.

SUGGESTIONS FOR ACTION

Implement a transparent diversity and inclusion strategy to provide an overarching framework for:

- Support from the top.
- Nurturing talent across the workplace.
- Embedding an agreed strategy into the organisation, ensuring initiatives and processes are adapted to the size and context of the organisation.
- Implementing effective face-to-face training, allowing for interaction and discussion.
- Re-assessing organisational culture, including proactive career management of men and women and succession planning.

"Successful companies are not the ones that build a business, then look at inclusion and diversity as a nice-to-have attribute. Truly successful and innovative companies are those that build diverse teams. Diversity is a mentality, not just a strategic imperative[10]."

EXAMPLES

Prospect Manifesto for Good Work[9]

Network Rail:

Network Rail has a strategic objective to build a more open, diverse and inclusive organisation that aims to reap benefits in terms of innovation, creativity and performance. The company works with a Trade Union Equality Group to improve its approach to diversity and inclusion.
Its 'Everyone' strategy has three themes:

A: Access and inclusion

The aim is to ensure that Network Rail is an attractive employer and women know how to get a job in the organisation. To this end, Network Rail has reviewed its reward and benefits structure to ensure transparency and equal pay. It has also reviewed recruitment processes to reduce, if not eliminate, bias.

B: Behaviours and culture

This includes a range of initiatives such as coaching, development, promotion and succession planning, mentoring, ensuring facilities are suitable and adequate e.g. toilets and personal protective equipment (PPE), addressing harassment and bullying and pro-active implementation of family-friendly policies.

C: Collaboration

This applies to cross organisational working and to external relationships, including early engagement with schools and colleges.

REFERENCES

Further reading:

Network Rail: Diversity and Inclusion Strategy 2014 – 2019 Page 52 offers insight into Network Rail's approach to managing diversity with a dedicated diversity and inclusion team providing a centre of expertise. www.networkrail.co.uk/careers/why-choose-us/diversity-and-inclusion-strategy-2014-19.pdf

Industry-Led 10 Steps A framework for sustaining and progressing women in STEM. Developed jointly by the Academy, WISE and their employer partners. www.wisecampaign.org.uk/consultancy/industry-led-ten-steps

Implementing a successful inclusion and diversity and inclusion strategy http://www.charlottesweeney.com/blog/2014/11/21/implementing-a-successful-inclusion%20and%20diversity-and-inclusion-strategy/

PORTIA: Effective strategies for gender equality in science http://www.portiaweb.org/

Forbes: Reaping the benefits of inclusion and diversity for modern business innovation http://www.forbes.com/sites/ekaterinawalter/2014/01/14/reaping-the-benefits-of-diversity-for-modern-business-innovation/

Kings College London: Equality Objectives & Action Plan 2012-2016 https://www.kcl.ac.uk/governancezone/GovernanceLegal/Equality-Objectives-2012-2016.aspx

References:

9 http://www.prospect.org.uk/campaigns_and_events/national_campaigns/goodwork/index?_ts=1
10 http://www.forbes.com/sites/ekaterinawalter/2014/01/14/reaping-the-benefits-of-diversity-for-modern-business-innovation/

1.3 COMBATTING UNCONSCIOUS BIAS

Ensuring that employees involved in recruitment and promotion processes receive effective equality and unconscious bias training.

> *"1/3 of working women in the UK feel disadvantaged in the workplace, with women believing men are offered greater opportunities at work. 57% of women surveyed felt that unconscious bias is the greatest barrier facing women in the workplace[11]."*

SUGGESTIONS FOR ACTION

Tackling unconscious bias:

- Offer diversity and inclusion training to all staff.
- Offer an anonymous, third-party complaint channel.
- Support projects that encourage positive images of women.
- Distribute stories and pictures that portray stereotype-busting images – posters, newsletters, annual reports, speaker series, podcasts.
- Embed into managers' appraisal processes the corporate objective to eliminate and mitigate against unconscious bias.

EXAMPLES

Prospect Union: What's holding women back? Tackling bias against women in STEM[12]

Kings College London: Equality and diversity: Unconscious bias[13]

Implicit Association Tests (IATs)[14]

Psychologists at Harvard, the University of Virginia and the University of Washington have created a range of Implicit Association Tests (IATs), to measure unconscious bias.

REFERENCES

Further reading:

The Equality Challenge Unit: Unconscious bias http://www.ecu.ac.uk/guidance-resources/employment-and-careers/staff-recruitment/unconscious-bias/

Marshall ACM: What is unconscious bias training? http://www.marshallacm.co.uk/news/what-is-unconscious-bias-training/

CDO Insights: Proven strategies for addressing unconscious bias in the workplace http://www.cookross.com/docs/UnconsciousBias.pdf

References:

11 http://www.theguardian.com/women-in-leadership/2015/jun/03/third-of-working-women-discriminated-against
12 https://library.prospect.org.uk/documents/201500309_unconscious_bias_-_whats_holding_women_back
13 http://www.kcl.ac.uk/aboutkings/governance/diversity/bias.aspx
14 https://implicit.harvard.edu/implicit/

"Many people would say employee voice is important to successful corporate engagement. Good employers recognise the value that union workplace representatives bring in resolving day-to-day problems at work and making workplaces fairer and safer[15]*."*

1.4 INVOLVING TRADE UNIONS

Including workplace representatives, where relevant, in the design and implementation of equality, inclusion and diversity programmes.

SUGGESTIONS FOR ACTION

- Identify the trade union representative to assist with workforce buy-in.
- Ensure the trade union representatives are trained to support diversity and inclusion, as well as tackling unconscious bias.
- Engage workplace representatives in the design and implementation of equality, inclusion and diversity initiatives - to help positively influence policy development, staff satisfaction, resolve problems and disputes.

EXAMPLE

Prospect Manifesto for Good Work[16]

REFERENCES

References:

15 www.prospect.org.uk/goodwork **16** www.prospect.org.uk/goodwork **17** Office for National Statistics: Labor Force Survey: Table 3.5b Trade Union density by major occupation group and gender 2011-2013

1.5 ESTABLISHING MEASUREMENTS AND TARGETS

Developing quantitative and qualitative measurements for inclusion and diversity, tied to business goals.

SUGGESTIONS FOR ACTION

Workforce profile of the organisation:

- Compare with objectives and 'best practice' peers.

Retention:

- Profile employees leaving the organisation.
- Review results from employee satisfaction surveys.
- Analyse the number and profile of employees offered and taking advantage of flexible work hours.
- Monitor the diversity of employees being offered high-risk, high-reward assignments.
- Improve and celebrate success, ensuring consistency with gender-balanced objectives.
- Deliver appropriate communication (frequency, tone) to employees with regard to diversity within all written and verbal contact.

Recruitment:

- Ensure selectors and interviewers have received inclusion and diversity training.
- New recruits - compare the profile:
  - with the applicants
  - with the candidates who received interviews
  - with the range of diversity available in the pipeline
  - of external candidates vs. internal candidates (there may be good reasons for a difference).
- Ensure policies and benefits have been reviewed and improved to attract a wider range of employees.
- Introduce inclusion and diversity templates for recruitment and promotion interviewees/ agencies to provide standardised checks and balances to monitor diversity.

Promotion:

- Ensure that selectors and interviewers have received inclusion and diversity training.
- Review all job descriptions to ensure only job-related functions and characteristics are specified.
- Assemble diverse and diversity-aware interviewing panels for all job openings.
- Review and improve policies and benefits to attract a wider range of senior and representative employees.

"The key is not creating a separate report card for diversity, but making your current report card inclusive[18]*."*

SUGGESTIONS FOR ACTION - continued

Personal training and development:

- Profile employees who have:
  - attended training classes/courses to enhance their development
  - participated in a formal mentoring relationship or programme.
- Recognise inclusion and diversity champions within your organisation, team or department.

External contact:

- Study the number of partnerships formed with organisations that focus on the needs of diverse professionals and other diverse candidates.
- Query if the organisation solicits customer feedback on diversity programmes or initiatives.
- Analyse the percentage of employees by gender, with global competencies, who are promotion-ready.

EXAMPLES

Kings College London: Equality Objectives & Action Plan 2012-2016 [19]

ACAS: Delivering equality and diversity [20]

REFERENCES

Further reading:

Washington State Human Resources: Measuring Diversity
http://www.hr.wa.gov/DIVERSITY/DIVERSITYMANAGEMENT/Pages/MeasuringDiversity.aspx

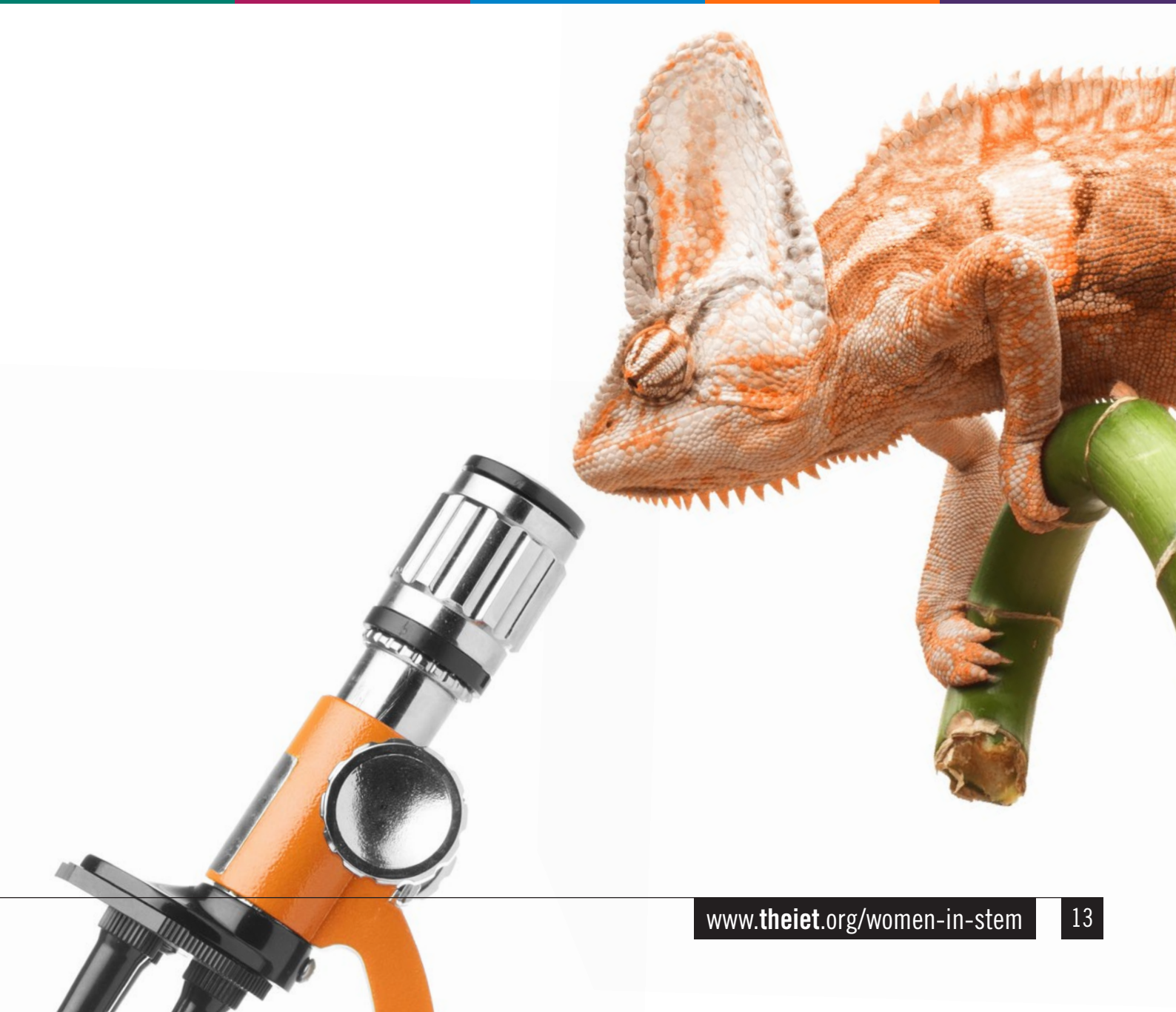
Canadian Institute of Diversity and Inclusion (CIDI): What gets measured gets done.
http://www.ccdi.ca/reports/what-gets-measured-gets-done.pdf

Australian Government: How to set gender diversity targets
https://www.wgea.gov.au/sites/default/files/SETTING-GENDER-TARGETS-Online-accessible.pdf

References:

18 http://www.workforcediversitynetwork.com/res_articles_DiversityMetricsMeasurementEvaluation.aspx *(Liliana Gil, co-founder and Managing Partner of AG and former Worldwide Director of Marketing Services at Johnson & Johnson)*
19 https://www.kcl.ac.uk/governancezone/GovernanceLegal/Equality-Objectives-2012-2016.aspx
20 http://www.acas.org.uk/media/pdf/l/e/Acas_Delivering_Equality_and_Diversity_(Nov_11)-accessible-version-Apr-2012.pdf

2. Recruitment



2.1 MONITORING RECRUITMENT DIVERSITY

Regularly reviewing the workforce make-up to measure the impact of diversity recruitment initiatives.

SUGGESTIONS FOR ACTION

- Ensure accountability is clear for staff responsible for recruitment, where attention to fairness is key.
- Report recruitment metrics across the organisation to act as a motivator.
- Re-define the staff pipeline, e.g. create alternative pathways to certain roles and establish mechanisms that encourage women into them.
- Create a diversity scorecard to help with monitoring and accountability.
- Manage and share a live staff talent pool to encourage internal promotion.
- Introduce a succession job role matrix to simplify a staff pipeline and emphasise where efforts may be best focused.
- Develop a visible and progressive career pathway for senior and executive roles. This could involve grouping together a range of internal job role bands/ grades and developing progressive route options. Agree gender-balanced targets, e.g. women make up 30% of staff in the four upper band/grades.

EXAMPLE

Sodexo: A diversity scorecard to help with monitoring and accountability[21]

The diversity scorecard at Sodexo makes everyone accountable by reporting the performance of managers and executives (compared to the target) each quarter.

It covers both quantitative and qualitative factors in each of the three critical diversity areas of hiring, promotion and retention.

At Sodexo, in order to increase accountability and results, 25% of the executive team's bonus was connected to its performance on the diversity scorecard. 10 to 15% of the management team's bonus was also tied to the scorecard.

REFERENCES

Further reading:

The Ten Steps for sustaining the pipeline of female talent in science, technology, engineering and manufacturing (STEM)
https://www.wisecampaign.org.uk/consultancy/industry-led-ten-steps/10-steps

UK Resource Centre for Women: Good practice guide, Recruitment and Selection: Competing in the war for talent
https://www.mrc-cbu.cam.ac.uk/documents/equality/GPGrecruit.pdf

Looking for bold recruitment approaches: best practices for recruiting women STEM women
http://www.eremedia.com/ere/looking-for-bold-recruiting-approaches-best-practices-for-recruiting-stem-women-and-diversity-candidates-part-2-of-2/

References:

21 http://www.eremedia.com/ere/looking-for-bold-recruiting-approaches-best-practices-for-recruiting-stem-women-and-diversity-candidates-part-2-of-2/

2.2 CONSIDERING CORPORATE REPUTATION

Thinking about how the organisation presents itself to the world in terms of promoting inclusion and diversity and a place where women can succeed.

> *"Under Network Rail's theme of 'Access and inclusion', the company has tried to ensure it is seen as an attractive employer, an organisation in which women know how to get a job. To this end, Network Rail has reviewed its reward and benefits structure to ensure transparency and equal pay. It has also reviewed recruitment processes to reduce, if not eliminate, bias[22]."*

SUGGESTIONS FOR ACTION

- Ensure a consistent approach to the use of inclusive imagery on all company information, not just recruitment literature, as well as on the company's main website and job adverts.
- Carry out a review of the organisation asking the question: 'Would a woman feel she would fit in here?' Think about the physical layout of your organisation as well as the organisational culture and structure. Consider if any aspects of these need to change.
- Do the groundwork through awareness raising and outreach work, e.g. into schools and universities. Ensure the organisation is recognised as an employer that helps women to thrive.
- Consider how family-related activities could improve the organisation's image and culture to attract candidates.
- Promote the achievement of individual and corporate awards, including those relating to women to recognise participation and success.
- Ensure all opportunities on offer are fair to both sexes.
- When selecting recruitment agencies or head-hunters, ensure they are briefed on best practices for the recruitment of women, according to the organisation's diversity policies and procedures.

EXAMPLE

BAE Systems [23]

Actions taken to support corporate reputation and image:

- looking for bias in the imagery used in recruitment campaigns
- running sessions for men to help them understand the barriers and challenges facing women
- engaging in a comprehensive schools programme
- enabling agile ways of working
- promoting visible role models
- running a diversity inclusion week

REFERENCES

References:

22 https://www.networkrail.co.uk/careers/why-choose-us/diversity-and-inclusion-strategy-2014-19.pdf
23 Joint IET and Prospect: Progressing Women In STEM Conference, March 2014

2.3 WIDENING THE POOL OF CANDIDATES

Considering how best to present vacancies and promote opportunities so that the organisation has a more diverse selection pool.

SUGGESTIONS FOR ACTION

- Invite recruitment agencies and head-hunters to present balanced shortlists.
- Advertise broadly – select advertising platforms used by women already, e.g. women's magazines, websites, social media, WISE.
- Consider recruitment opportunities at large technology industry events where qualified and competent women are likely to attend.
- Partner with educational establishments.
- Re-think the meaning of 'cultural fit' to broaden the talent pool under consideration and limit the effect of unconscious bias.
- Encourage and engage women from within the business to act as role models/ ambassadors - serving as speakers at industry events or giving talks at educational establishments to help to build their skills.
- Participate in outreach activities.
- Consider funding targeted projects, scholarships or initiatives that encourage the recruitment and development of women in STEM[24].

EXAMPLES

BT - Female-friendly recruitment campaigns[25]

BT advertise job vacancies in women's magazines to maximise its chances of gaining applications from women. Its adverts give details of policies on childcare and caring, as well as information on maternity and adoptive leave provision.

Microsoft - T Party initiative[26]

Microsoft research found that confidence is key to the career progression of women. So, by bringing all of the components together - role models, inspiration and sponsorship – the company generates interest for women in following a career in IT that they may not have previously considered. This case study shows how Microsoft engaged senior leaders as career sponsors and mentors for female talent.

REFERENCES

Further reading:

Anita Borg Institute: Solutions to recruit technical women
http://anitaborg.org/wp-content/uploads/2014/01/AnitaBorgInstitute_SolutionsToRecruitTechnicalWomen_2012.pdf

References:

24 Curtis et al 2009, cited in Anita Borg Institute for Women , Technology Solutions to Recruit Technical Women
25 http://www.eremedia.com/ere/looking-for-bold-recruiting-approaches-best-practices-for-recruiting-stem-women-and-diversity-candidates-part-2-of-2/
26 https://royalsociety.org/~/media/policy/projects/leading-the-way/case-studies/microsoft-case-study.pdf

2.4 ADVERTISING ROLES TO ATTRACT FEMALE CANDIDATES

Developing job descriptions and adverts that encourage women to apply for a role.

SUGGESTIONS FOR ACTION

Company image:

- Create the right impression in corporate documents, annual reports etc. through language and pictures.
- Ensure relevant representation at recruitment fairs and create a good first impression.

Framing the job:

- Use a competency and evidence-based approach to setting selection criteria for a job - only include what is actually needed.
- Think about how to make the job feasible and attractive to job sharers and part-time workers.
- Use clear and precise role specifications without jargon – at all stages of the process.

Advertising the job:

- Use appropriate and straightforward gender-neutral language in job advertisements.
- Use statements that encourage under-represented groups to apply.
- Summarise benefits where relevant, e.g. part-time/job-share/flexible hours.
- Avoid unintentional barriers, e.g. allow relevant experience to substitute for a qualification where appropriate.
- Take care with language, setting out qualification requirements to avoid being exclusive.
- Advertise broadly - consider using women's magazines websites and chat rooms, social media.
- Offer a female company representative to answer questions from (prospective) female applicants, if possible.

"A scientific study of 4,000 job descriptions revealed that a lack of gender-inclusive wording caused significant implications for recruiting professionals tasked to recruit women in hard-to-fill positions under-represented by women[27]."

EXAMPLES

Wording the advertisement in a more personal way. If cost allows, including positive images of women in STEM occupations:

Food processing company urgently seeks qualified food hygiene technicians to deliver government-funded research project.

OR:

Do you want to contribute to improving food safety? If you have food hygiene qualifications and want to work in a family-friendly environment, we'd like to hear more from you.

Including Equal Opportunity statements:

Trained computer programmers and troubleshooters required for work in Zanex.

OR:

We have vacancies for posts which will involve helping our clients to deal with hardware/software problems with their Personal Computers. We welcome applications from women, minority ethnic communities, etc.

Same level calls:

Research at Whirlpool demonstrated that the person who makes an initial recruiting call has a significant impact on whether it is answered and successful. The job level, the gender of the caller and the time of the call all have a significant impact on its success. Where calls by someone at an equal or higher job level (same level calls) can get a 100% response rate, standard recruiter calls normally only get a 10% response rate[28].

Feminine and masculine-themed words used in an engineering job description:

Engineer company description:

Feminine: We are a community of engineers who have effective relationships with many satisfied clients. We are committed to understanding the engineering sector intimately.

Masculine: We are a dominant engineering firm that boasts many leading clients. We are determined to stand apart from the competition.

Engineer qualifications:

Feminine: Proficient oral and written communications skills. Collaborates well in a team environment. Sensitive to clients' needs, can develop warm client relationships.

Masculine: Strong communication and influencing skills. Ability to perform individually in a competitive environment. Superior ability to satisfy customers and manage company's association with them.

Engineer responsibilities:

Feminine: Provide general support to project team in a manner complimentary to the company. Help clients with construction activities.

Masculine: Direct project groups to manage project progress and ensure accurate task control. Determine compliance with client's objectives[29].

REFERENCES

References:

27 http://www.eremedia.com/ere/you-dont-know-it-but-women-see-gender-bias-in-your-job-postings/
28 http://www.eremedia.com/ere/looking-for-bold-recruiting-approaches-best-practices-for-recruiting-stem-women-and-diversity-candidates-part-1-of-2/
29 http://www.eremedia.com/ere/you-dont-know-it-but-women-see-gender-bias-in-your-job-postings/

2.5 SHORTLISTING APPLICATIONS

Ensuring the existence of a robust and fair process for application shortlisting.

SUGGESTIONS FOR ACTION

Key components for successful application shortlisting:

- Apply a gender-balanced approach to shortlisted applicants.
- Set sift criteria and agree thresholds and weightings ahead of the shortlisting.
- Ensure external recruiters do not filter out relevant technical skills nor introduce unmonitored barriers to female applicants.
- Arrange for applications to be reviewed by at least two different recruiting managers to test consistency in approach.
- Use the person specification systematically to assess each application.
- Complete the shortlisting in one sitting where possible.
- Review every application independently.
- Eliminate information that has the potential to cloud judgement.
- Record why an applicant did or did not make the shortlist.
- Maintain records to enable organisational learning from them. The length of time records should be kept will vary depending upon frequency of recruitment.

Unconscious bias continues to be present during the application stage as fewer BAME* and women are selected [30]

REFERENCES

References:

30 Business in the Community: 2014 Gender and Race Benchmark Trends: Key findings
*Black and Minority Ethnic (BAME)

2.6 SELECTION AND INTERVIEW

Ensuring the right person for the role is selected, by checking that everyone involved in interviewing and selection is properly trained and able to make a fair selection.

SUGGESTIONS FOR ACTION

- Avoid all-male interview panels where possible - this presents a more diverse image of an organisation and can be less intimidating. If this is not possible, consider the involvement of female employees elsewhere in the interview process. For example, if a tour is included in the interview, this could be given by a woman working in a similar role to the vacant role.
- Consider using female assessors to make the call, if using initial telephone assessments.
- Let candidates know in advance what the selection process will involve.
- Ask for feedback regarding the organisation's selection process from all candidates, whether successful or not, to find out whether your selection process is helping you make your organisation appealing to both sexes.
- Trial alternative approaches to selection and monitor the impact on diversity outcomes.
- Introduce unconscious bias and gender-specific recruitment training for directors, managers, HR and all involved in the recruitment process.
- Keep a record of interview and selection decisions, including the rationale for selection or rejection to assist with improving future decision making. The length of time records should be kept will vary depending upon frequency of recruitment.

EXAMPLES

IBM (Project View Plus)[31]

Recruiting leaders at IBM realised that simply talking to recruiters wasn't convincing enough to attract the very best experienced women and minority candidates. As a result, the company experimented with a face-to-face approach, which included an expenses-paid, two-day, on-site visit. The programme required managers to interact with the referred, experienced prospects. If both parties were convinced, offers were made before they left.

Cisco: implementing a 'friends program', where employees talk candidly to applicants[32]

Cisco demonstrated that, by offering the opportunity to talk to an actual employee (a new friend), you could, in some cases, excite applicants. An updated 'friends program' would include providing highly qualified STEM women interviewees with an opportunity to talk briefly with another woman in a technical position at the firm.

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References:

31 http://www-03.ibm.com/employment/us/diverse/downloads/ibm_diversity_brochure.pdf
32 http://www.fastcompany.com/29038/how-cisco-makes-friends

2.7 APPOINTING AND PROMOTING

Ensuring a policy is in place, in line with the Equality Act, that commits to fairness in the workplace when appointing and promoting.

SUGGESTIONS FOR ACTION

Company image:

- Create the right impression in corporate documents, annual reports etc, through language and pictures.
- Ensure relevant representation at recruitment fairs and create a good first impression.

Framing the job:

- Use a competency and evidence-based approach to setting selection criteria for a job - only include what is actually needed.
- Think about how to make the job feasible and attractive to job sharers and part-time workers.
- Use clear and precise role specifications without jargon – at all stages of the process.

Advertising the job:

- Use appropriate and straightforward gender-neutral language in job advertisements.
- Use statements that encourage under-represented groups to apply.
- Summarise benefits where relevant, e.g. part-time/job-share/flexible hours.
- Avoid unintentional barriers, e.g. allow relevant experience to substitute for qualification where appropriate.
- Take care with language, setting out qualification requirements to avoid being exclusive.
- Advertise broadly - consider using women's magazines, websites and chat rooms, social media.
- Offer a female company representative to answer questions from (prospective) female applicants, if possible.

EXAMPLE

The Equality Act

The aim of the Equality Act is to improve equal job opportunities and fairness for employees and job applicants. Organisations should have policies in place so these outcomes happen and, just as importantly, to prevent discrimination.

This includes:

- selection processes that take account of varied experiences and personal styles
- contractual terms that are fair and transparent, including pay, leave and hours of work
- pay that is equal to any similar role held by a male; any variations in pay – e.g. for additional experience or relevant achievements - should be based on clear criteria and only paid where demonstrably necessary for the role
- as much flexibility as is reasonable for the role - not just accepting that it must be done in the way that it was previously
- equal access to training and development opportunities
- training for managers to ensure that their decisions are not affected by unconscious bias
- access to in-house networks and mentoring opportunities.

REFERENCES

Further reading:

The Equality Act 2010
https://www.gov.uk/equality-act-2010-guidance

The Equalities and Human Rights Commission
http://www.equalityhumanrights.com/

Government Equalities Office: guidance for employers on how best to implement positive action:
https://www.gov.uk/government/publications/employers-step-by-step-guide-to-positive-action-in-recruitment-and-promotion

Book: Making Equality Work, by Shahnas Ali, Christine Burns and Loren Grant Plain Sense Ltd; 1 edition (15 Sept. 2013)

2.8 EVALUATING PROGRESS

Regularly monitoring the workforce diversity and seeking feedback from applicants to gain useful insights for the organisation.

> *"It is important to measure progress to create better understanding within organisations and reinforce good practice:* "What gets measured gets done" [33]*."*
>
> **Peter Cheese, Chief Executive Officer of the Chartered Institute of Personnel and Development (CIPD)**

SUGGESTIONS FOR ACTION

- Track the numbers of women who make initial enquiries about the role, the number that then apply and the number who get through each stage of the process and reviewing.
- Track the numbers who withdraw and find out why they did so.

REFERENCES

Further reading:

Washington State Human Resources: Measuring Diversity
http://www.hr.wa.gov/DIVERSITY/DIVERSITYMANAGEMENT/Pages/MeasuringDiversity.aspx

Canadian Institute of Diversity and Inclusion (CIDI): What gets measured gets done.
http://www.ccdi.ca/reports/what-gets-measured-gets-done.pdf

Australian Government: How to set gender inclusion and diversity targets
https://www.wgea.gov.au/sites/default/files/SETTING-GENDER-TARGETS-Online-accessible.pdf

References:

33 At the Joint IET and Prospect: Progressing Women In STEM Conference, 4th March 2015

3. Promotion

3.1 EVOLVING THE ORGANISATION

Helping managers to promote a fairer, more diverse workplace and one that better recognises the talents of women within it.

> *"81% of women aged 28-40, believed that having children would affect their career progression[34]."*

SUGGESTIONS FOR ACTION

- Try 'Reverse Mentoring' to help Senior Managers understand how women perceive the organisation. Through this technique, senior managers can learn from junior women about the difficulties they experience and their ideas for improvements.
- Involve trade unions, when deciding on strategy, setting targets/quotas, formulating actions, implementing initiatives and reviewing progress.
- Implement unconscious bias awareness activity and training.
- Use opportunities such as National Women's Engineering Day and Ada Lovelace Day to hold events celebrating the historical achievements of women in STEM fields.
- Use industry and technical forums to spotlight the accomplishments of women in the industry.
- Highlight examples of men and women in senior roles who work part-time – to help diminish stigma and the assumption that this is career-limiting.
- Adopt gender-neutral language in all company documents.
- Ensure women are visible on posters, in training videos etc.
- Use in-house publications to spotlight good performance by women or teams led by women.
- Support women's staff networks to raise the profile of women in the organisation.
- Evolve the company so that it is ready for women to operate in all posts.
- Ensure facilities are suitable and adequate, e.g. changing rooms, toilets, personal protective equipment stores, uniforms, etc.
- Be alert to behaviours which can make minority staff feel unwelcome or disrespected.
- Challenge assumptions about where the next leaders will come from.
- Spread the message that women do not need to be replicas of the previous incumbent to be accepted and valued in a senior role.

REFERENCES

Further reading:

The Ten Steps for sustaining the pipeline of female talent in science, technology, engineering and manufacturing (STEM)
https://www.wisecampaign.org.uk/consultancy/industry-led-ten-steps/10-steps

References:

34 Opportunity Now, Project 28-40: The Report http://www.bitc.org.uk/system/files/project_28-40_the_report.pdf

3.2 ESTABLISHING ROLES AND PROCESSES TO INCLUDE WOMEN

Taking care to adopt gender-neutral roles, by focusing on real need, establishing clear criteria and using the information and technology available.

SUGGESTIONS FOR ACTION

Roles and job design:

- Define gender-neutral roles.
- Develop the roles you actually need - some organisations unthinkingly reproduce historical roles.
- Consider how you can optimise new technology to make some roles more compatible with family commitments, e.g. videoconferencing.
- Think carefully about what requirements are really necessary, once you have defined the new role - any requirement likely to disproportionately exclude potential women candidates should be justifiable.
- Liaise with the organisation's women's network if there is one.

Selection process:

- Advertise the role openly and invite internal applications.
- Avoid relying on senior staff to identify 'preferred' candidates.
- Ensure all staff involved in the selection process receive effective training, including unconscious bias training.
- Ensure the selection process works to a transparent schedule and does not disadvantage part-timers.
- Encourage and respond positively to questions about the role and the process itself.
- Be aware that responses which may seem neutral to some people, can be interpreted negatively.

Selection method:

- Formulate gender-neutral interview questions and aptitude tests.
- Review selection decisions after each stage - for evidence that the process has been fair and that unconscious bias hasn't hindered objective decision-making.

EXAMPLES

An inconsiderate response

If a candidate asks if some of the work could be done from home, a response of "we've never done that before" could be interpreted negatively and discouraging - even if it wasn't meant to be.

Review the qualifications

For some industrial safety roles, an engineering qualification may not be essential. A background in ergonomics or occupational hygiene may be equally or more useful. Considering professionals from these fields may increase the candidate pool and has the potential to increase the number of women candidates.

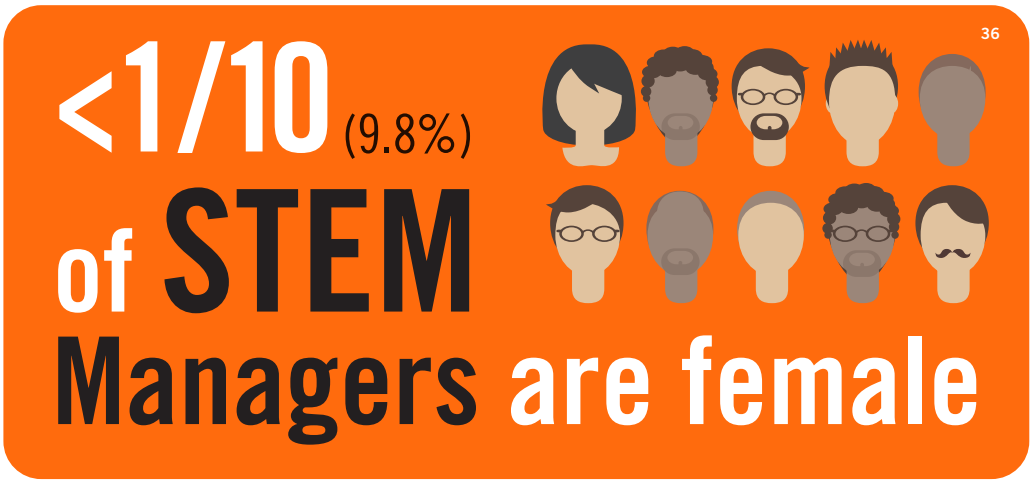
The benefits of thinking differently

An organisation employs four full-time Senior Control and Instrumentation (C&I) Engineers to support 15 sites. Each site has its own local C&I team and many teams include part-timers. When one senior engineer retires the company prepares to fill the vacancy by promoting someone from within one of the C&I teams. Even though all previous senior engineers have worked full-time, the company communicates directly with every team member, making it clear that options involving part-time working or job-sharing will be welcomed and fairly considered.

Consequently, the company successfully promotes two part-time C&I team members to become part-time senior engineers. Some reallocation of responsibility for different sites is necessary, but is worthwhile to get the best candidates.

The new arrangement provides additional benefits. The reduction in wasted travel time between sites proves to be an extra efficiency for the company. Having three full-time and two part-time senior engineers provides extra flexibility, allowing the company to reduce the hours of another senior engineer approaching retirement, without completely losing all that expertise and experience.

"Written job descriptions and person specifications are very important. Research shows that panels without clear criteria unconsciously make more gender-biased choices[35]."



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35 Uhlmann, E. L., & Cohen, G. L., (2005). Constructed criteria – Redefining merit to justify discrimination. Psychological Science, Vol 16, No. 6, 474–480]. **36** Office for National Statistics: Labour Force Survey, March 2011- March 2012

"The wider trend is that female STEM participation decreases as the seniority of positions increases[37]."

3.3 CULTIVATING COMPETITION FROM WOMEN CANDIDATES

Using appraisals, mentoring and informal discussion groups to develop the ability of male and female candidates to successfully compete in a fair selection process.

SUGGESTIONS FOR ACTION

- Use appraisal processes to develop and encourage women to compete for promotion.
- Guide women towards advice and support, such as staff networks and mentoring schemes.
- Conduct appraisals positively ensuring managers are well-trained, including unconscious bias training.
- Consider introducing a mentoring programme – this can can help overcome feelings of exclusion by some employees.
- Introduce women to senior company figures through informal discussion groups and seminar series.
- Help unsuccessful candidates understand what they can do to be successful next time.
- Recognise that a candidate's internalised bias may lead them to exaggerate their deficiencies.
- Be honest and clear about future potential for promotion.
- Guide employees to development initiatives they may not already be undertaking, e.g. further learning, mentoring, women's networks, conferences etc.

EXAMPLE

PricewaterhouseCoopers (PwC): developing women[38]

PwC has a three-point strategic approach to developing and advancing women. The company has launched a bias awareness training programme to help understand the nature of bias. It demonstrates techniques to control personal bias in the workplace when, for example, assessing colleagues for promotion or performance. It also developed an actuarial model to uncover underlying patterns, blockages and trends in the way women are promoted. Meanwhile, the data provides insight to support individuals and groups through gender diversity initiatives. For instance, by offering a childcare voucher for the first year after return to work, the number of women returning from maternity leave increased from 40% to 93% in the UK firm.

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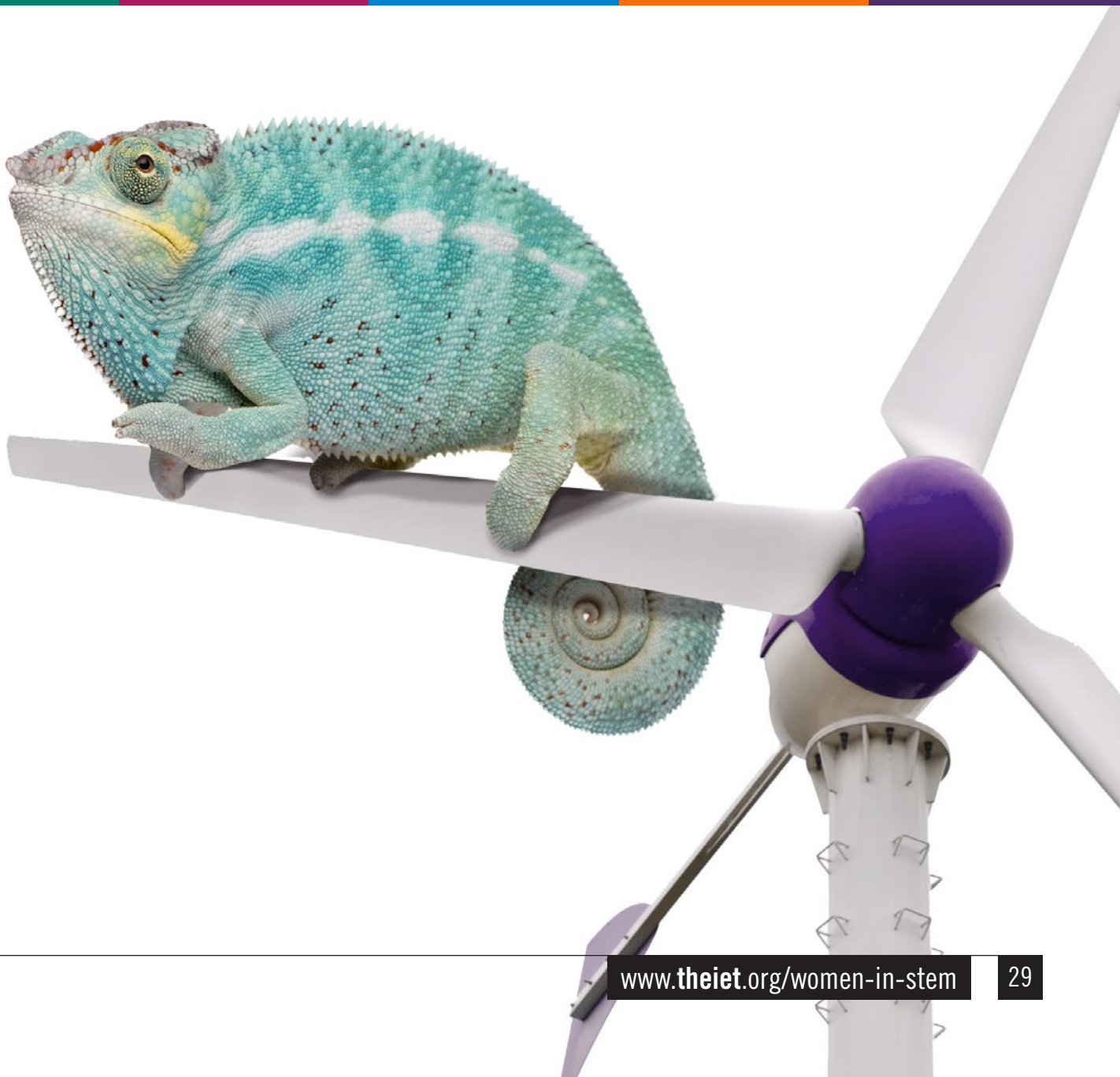
4. Retention



4.1 ENSURING ALL EMPLOYEES FEEL VALUED

Improving retention by implementing a transparent diversity and inclusion plan.

SUGGESTIONS FOR ACTION

Implement a transparent diversity and inclusion strategy that includes:

- Reward talent and achievement rather than stereotypical indicators of success.
- Foster open communication - give employees structured ways to make their thoughts, feelings and observations regularly known.
- Ensure equal pay for women and men in STEM roles. A small pay gap early in one's career grows over time, leading to significant consequences for lifetime earnings.
- Be proactive about succession planning.
- Value skills achieved outside the workplace, where relevant.
- Support flexible working practices.
- Develop family-friendly policies, where possible.
- Provide support for employees returning from career breaks (men and women).
- Look at how the organisation can be more transparent about its appraisal, development, feedback and promotion processes.
- Encourage and enable development for all - actively encourage leadership and development programmes for women.
- Offer mentoring opportunities to junior and new staff.
- Conduct exit interviews and analyse data for continuous improvement.
- Ensure female-friendly facilities are available.
- Encourage senior female leaders to become role models.
- Develop employee profiles/case studies, external articles about women.
- Encourage senior male leaders to sponsor up-and-coming women.
- Provide training to ensure that unconscious bias does not influence recruitment and promotion decisions or appraisal processes.
- Describe roles in terms of competencies actually required.
- Ensure that the culture is outcome-focused and not based on presenteeism.
- Think about generational differences during appraisal processes to avoid assessments being characterised by values and motivations specific to the appraiser's formative years.
- Recognise transferable skills – avoid automatically excluding candidates who have not worked in specific roles or received specific training.

REFERENCES

Further reading:

The Ten Steps for sustaining the pipeline of female talent in science, technology, engineering and manufacturing (STEM)
https://www.wisecampaign.org.uk/consultancy/industry-led-ten-steps/10-steps

4.2 ENABLING FLEXIBLE WORKING

Recognising the value of offering flexible working, enabling staff to fulfil their working commitments, without necessarily attending the workplace.

> *"The lack of job mobility and career progression for flexible workers is a major factor in the failure of the female talent pipeline. Employers should be mindful not only of their glass ceilings but their sticky floors*[39]*."*

SUGGESTIONS FOR ACTION

- Introduce a flexible working policy that offers options for all new roles where relevant. This may cover the following:
  - part-time hours
  - compressed working week
  - job sharing
  - mobile working
  - home working
  - term-time working.
- Consult with staff at all levels.
- Consult with relevant trade unions/staff associations.
- Create clear, written procedures for implementation and evaluation, including regular re-assessment.
- Communicate changes to employees and keep them up to date with change.

EXAMPLE

Deloitte: increasing work flexibility in order to attract and retain more women[40]

Many firms have learned that offering increased work flexibility, career scaleability and providing choices can all be powerful attraction features for women. Deloitte offers a 'Mass Career Customisation Programme' which provides employees with an opportunity to dial down or dial up their work responsibilities, work hours and travel depending on their current individual priorities.

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Further reading:

ACAS: Flexible working and work-life balance
http://www.acas.org.uk/media/pdf/4/n/Flexible-working-and-work-life-balance.pdf

Catalyst: High Potentials in Tech-Intensive Industries: The Gender Divide in Business Roles
http://www.catalyst.org/knowledge/high-potentials-tech-intensive-industries-gender-divide-business-roles

Race for Opportunity: Bridging the Value Gap
http://raceforopportunity.bitc.org.uk/sites/default/files/kcfinder/files/RaceforOpportunity/bridging_the_value_gap_toolkit.pdf

References:

39 The timewise jobs index: http://timewise.co.uk/wp-content/uploads/2015/05/Timewise_Flexible_Jobs_Index.pdf
40 http://www.nnstoy.org/download/continuums-of-professional-practice/Deloitte%20Review%20-%20Mass%20Career%20Customization%20-%20Benko.pdf

"50,000 women with SET qualifications or experience were not working. Of those who returned after a career break, only a minuscule 8,000 SET women re-entered the workplace into jobs that utilised their qualifications and expertise[41]."

4.3 MANAGING CAREER BREAKS EFFECTIVELY

Managing staff as they prepare for a career break and ensuring an effective return to work by keeping in touch with them during career break periods.

SUGGESTIONS FOR ACTION

- Consider how a returning employee can return to a position that matches their talents and skills.
- Look at what support can be offered to those who have undertaken a career break - e.g. women's networks, buddy programmes or Keeping-in-Touch (KIT) days – all of which help in providing a smooth transition back into the workplace.

Employers may find the following considerations relevant when creating policies and procedures relating to career breaks:

- How an employee's continuity of service, pension and other terms/conditions of service are managed.
- Backfill during career break period, including legal rights associated with this.
- Organisational restructure and effects on all staff, including employees on a career break.
- Proactive arrangements if an employee decides not to return to work after a career break.

REFERENCES

Further reading:

Institute of Physics: Managing a career break guidance document:
http://www.aps.org/programs/women/resources/upload/CareerBreaksIOP.pdf

References:

41 Good Practice Guide, Recruitment and Selection: Competing in the war for talent https://www.mrc-cbu.cam.ac.uk/documents/equality/GPGrecruit.pdf

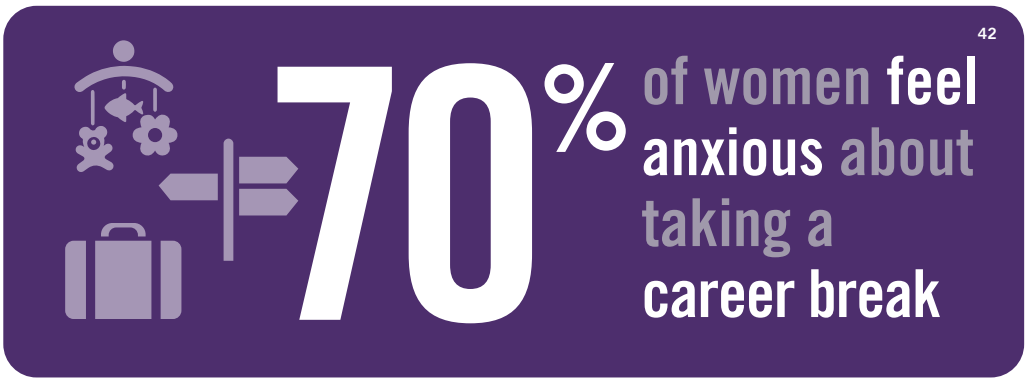
4.4 SUPPORTING WOMEN RETURNERS

Implementing a returner programme and suitable return to work procedures to help the organisation to re-recruit and women to re-integrate.

SUGGESTIONS FOR ACTION

Implement a returners programme and suitable return to work procedures that may include:

- Re-induction and retraining.
- Coaching and mentoring.
- Access to a women's network.
- Pre-return self-appraisals.
- Work experience arrangements for women taking career breaks.
- Providing relevant support, e.g. skills, confidence, product training.



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References:

42 http://www.theguardian.com/women-in-leadership/2014/mar/25/70-of-women-fear-taking-a-career-break (retrieved Feb 2015) (London Business School survey)

"The cost of lost training and experience if a woman fails to return has been estimated at £200,000 each, so both women and employers lose out[43]."

Dawn Bonfield, Women's Engineering Society (WES)

EXAMPLES

Atkins: Returners Programme[44]

This includes a two-day course for returners shortly after returning to work. The company also has a Women's Professional Development Programme - a 4-day course run over 3 months.

Thames Tideway Tunnel: 12 week professional internships[45]

While constructing a 25 kilometre sewer tunnel in London, Thames Tideway Tunnel introduced paid 12-week professional internships (now closed) for professionals returning to the workforce after two or more years. They were given assignments, coaching support and an internal mentor.

Re-recruiting top performing employees[46]

Organisations such as Deloitte and DaVita have found that re-recruiting previously top performing employees is a successful way to increase top quality staff. This type of boomerang approach can be used to target former women STEM professionals back into an organisation.

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Guardian: The five things I want to tell employers about women returning to work
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https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/204751/DCMS_WBC_Full_Report_v1.0.pdf

Women returners to business Helping experienced professionals get back to work after an extended career break
http://corp.womenreturners.com/

MentorSET – a mentoring scheme for women in STEM
http://www.mentorset.org.uk/

Wellcome Trust: Getting back in to research after a career break
http://www.wellcome.ac.uk/stellent/groups/corporatesite/@msh_peda/documents/web_document/wtp057274.pdf

The Daphne Jackson Trust: They offer a fellowship scheme aimed at women and men who have taken a break of at least three years from a SET career.
www.DaphneJackson.org

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The Institution of Engineering and Technology

In association with prospect union for professionals

Progressing Women in STEM Roles

A report following the joint IET and Prospect *Progressing Women in STEM Roles* 2015 conference

Supporting a **diverse, adaptable** and **talent-rich workforce**

www.**theiet**.org/women-in-stem

Lates
This revision: https://library.prospect.org.uk/id/2015

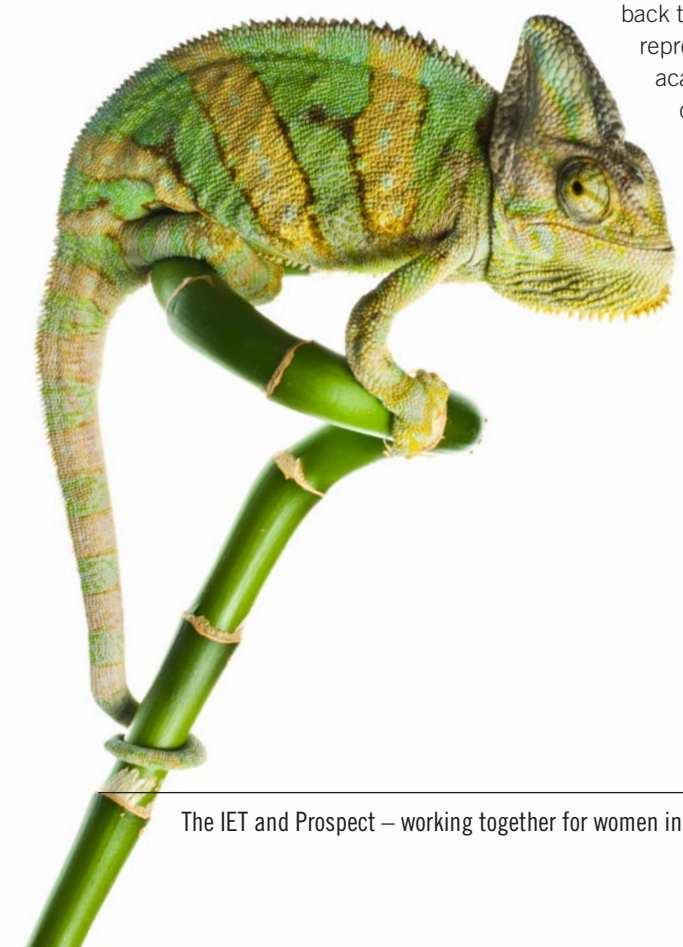
ABOUT THIS REPORT

The IET and Prospect – working together for women in STEM

In early 2015, the Institution of Engineering and Technology (IET) and Prospect, the union for professionals, decided to work together to gain further insight into the recruitment, promotion and retention of women in Science, Technology, Engineering and Maths (STEM) roles and to champion the career progression of women in STEM. We have focused predominantly on how to promote best practice, inclusion and diversity, as key components of a strategic business agenda.

Driven by a growing body of research-based evidence, highlighting the relatively unchanged climate around the progression of women in STEM roles within the UK, the IET and Prospect hosted a conference: *Progressing Women in STEM Roles*, in March 2015.

This report follows up the work of this conference - effectively reporting back to a wide range of representatives from industry, academia and government, on the findings and recommendations of this collaborative effort.



The Institution of Engineering and Technology (IET)

The IET believes that the difficulty in attracting women into engineering is not solely a diversity issue, but an economic one – as the UK needs to find 1.82 million new engineers between 2012 and 2022. To tackle this, the IET offers a series of awards and scholarships, including the Young Women Engineer of the Year Awards to honour high-achieving female engineers who can also help to inspire the female engineers of the future. The IET also runs the UK's largest online career support network for female engineers – and works in hundreds of schools every year, reaching thousands of girls and young people, to promote STEM careers and subjects.

Prospect, the union for professionals

Prospect is the union for professionals. We champion good work – our aim is for everyone to have the opportunity to do work that is enjoyable, stretching and fulfilling. We know that our members want jobs that enable them to fully utilise their skills, develop their careers and achieve their full potential at work. Yet engineering and technology skills are thin on the ground at a time when Britain needs more good jobs in high-performing workplaces, to rebalance the economy and sustain fairer and stronger growth.These challenges will not be resolved unless we use all of the talent pool. Prospect therefore believes that we need a concerted programme of action to address the under-representation of women at all levels. We are committed to playing our part, in particular through practical action in the workplace.

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FOREWORD

Only 9% of engineers in the UK are women, according to the IET's *Engineering and Technology Skills and Demand in Industry Survey 2015*. So, when I heard about this STEM programme from the IET and Prospect, I knew I had to get involved.

We know that there is a difficulty in attracting women into engineering. While schools are working to get girls interested in STEM subjects, employers could do more to make sure that they are also playing their part. Employers can make a positive difference to progressing women in STEM roles by making their approach to recruitment, promotion and retention more female friendly.

There's a lot of guidance on this subject already out there, so why add to it? One of the key outcomes of the wide-ranging collaboration that produced this report has been the recognition that it is women already in STEM roles that need specific support from their employers. While that's not to say that students and new graduates do not need this, there now has to be a focus on the key problem – women in STEM roles leave STEM roles.

While its primary audience is employers in STEM industries, this report will be of interest to everyone who wants to ensure that STEM organisations benefit from diverse teams and inclusive cultures. It will be particularly relevant to those in senior leadership roles as well as line and functional managers – in SMEs, as well as large organisations.

Although HR professionals are not always the first point of contact in operating inclusion and diversity policies, this report will also be useful to individuals involved in recruitment, promotion and retention activities – including selection and appointment panel members, managers, executives, corporate communication units, trade unions and employee networks.

With its awards, scholarships and approach, the IET is well-placed to take a leading role in supporting women in STEM roles. In 2014, Prospect surveyed its membership and found that the top priorities for women were accessible career paths, including increased opportunities for appropriate training and learning, parity of promotion opportunities and support for formalised succession planning.

Having taken part in the *Progressing Women in STEM Roles* conference in March 2015 and followed the ongoing discussions, I am keen to put my name behind the four key recommendations in this report. I urge all employers of women in STEM roles to take these recommendations and act to create a diverse and talent-rich workforce.

Baroness Margaret Prosser OBE

EXECUTIVE SUMMARY

This report summarises the collaboration and contribution from members of the IET, Prospect, industry practitioners and subject experts within academia.

The main areas of focus are:

- engaging leaders and establishing top-down objectives, with organisations having the will to put the policies into practice
- effective training for managers and recruiters to remove unconscious bias
- improving the culture and employment framework, in order to provide rewarding and relevant careers for women in STEM all the way through their career cycle
- monitoring and measuring achievement against expectation of improvement in inclusion and diversity and gender balance; intelligently and open-mindedly analysing what influences the discrepancies
- structuring and advertising job opportunities – both for recruitment and for promotion, to be as appropriate and relevant for women in STEM as they are for men.

BACKGROUND – THE CONTEXT FOR CHANGE

THE STEM SKILLS CRISIS

There is a growing consensus that employers of scientific, technical and engineering staff face a skills crisis which is contributing, in part, to holding back the UK's economic recovery.

According to the Royal Society, one million more new STEM professionals are required by 2020.

A 2014 report[1] found that eight in ten business leaders in these sectors believe a significant skills crisis will hit their organisations within the next three years, while half predict this will happen within the next 12 months.

There is no doubt that the looming skills crisis is intensified as a result of gender segregation in the STEM workforce.

Of the 693,000 individuals working in the (STEM) sector, only 14.4% are women[2].

Clearly there is a major challenge to recruit more young people into STEM, but it is short-sighted to ignore the talent pool of women qualified in STEM.

When it comes to hiring engineers, the UK may be missing out on potential talent as a result of overlooking women in the workplace[3].

The report *What's holding women back? Tackling bias against women in STEM*[4] provides evidence that, in STEM fields, women do not progress into senior roles as often as men.

There has been much debate on why this is so. Could it be that women are simply not as suited for technical roles? This perceived notion has resurfaced in different forms over many years. Again and again, it has been refuted by the evidence.

An alternative explanation for the disparity in women's progression is that, even if they experience a level playing field at work and at home, many women still choose to subordinate their careers to their domestic responsibilities more often than men do. But the available evidence does not support this hypothesis either.

If women are not less talented or less ambitious, can there be a more subtle, but still powerful, force holding women back? Is there a bias acting against women?

In 2012, this debate was energised by research[5] which demonstrated senior scientists' bias against candidates with female names, compared to identical candidates with male names. The research indicated female candidates were less likely to be offered a job and would be offered a lower salary. The researchers found the bias was unconscious and unintentional.

Driven by a growing body of research-based evidence, highlighting the relatively unchanged climate around the progression of women in STEM roles within the UK, the IET and Prospect agreed to a programme of work to gain further insight into the recruitment, promotion and retention of women in STEM roles and to champion the career progression of women in STEM[6].

1 'The Skills Crunch' (www.princes-trust.org.uk/pdf/SkillsCrunch.pdf)
2 www.wisecampaign.org.uk/resources/tag/statistics
3 www.themanufacturer.com/articles/lack-of-women-hindering-engineering-capabilities/#sthash.ylYM83MY.dpuf
4 What's holding women back? Tackling bias against women in STEM, Prospect, the Union for Professionals (see Appendix C)
5 Moss-Racusin et al. 2012
6 The IET and Prospect work programme (see Appendix A)

1. BUSINESS CASE: FOR A DIVERSE AND INCLUSIVE WORKFORCE

"Successful companies are not the ones that build a business, then look at inclusion and diversity as a nice-to-have attribute. Truly successful and innovative companies are those that build diverse teams. Diversity is a mentality, not just a strategic imperative[7]*."*

The value of a diverse and inclusive workforce is now accepted as a fundamental tool in today's employment market[8].

More and more organisations are recognising that their potential to improve business results increases when people from diverse backgrounds and perspectives are included in decision-making.

Companies with diverse executive boards enjoy significantly higher earnings and returns on equity[9].

Forbes has identified workforce diversity and inclusion as a key driver of internal innovation and business growth[10].

A 2012 inclusion and diversity survey carried out by *HR Magazine* had 82% of employers saying that inclusion, diversity and equality were either core to their business, a top priority or important to them[11].

Business benefits of diversity:

External:	■ firms better represent the world and legislative environment around them ■ having staff with roots in other countries and cultures helps a business address its products appropriately and sensitively in new markets ■ reflecting the fact that consumers are becoming more diverse means firms are more aligned in significant markets
Internal:	■ attention to diversity can improve internal operations and relations ■ a range of perspectives can improve creativity and problem-solving, resulting in better decisions ■ a diverse workforce can offer greater flexibility

The Royal Academy of Engineering notes that 'Diverse teams produce better results in engineering, where different experiences and ways of thinking often lead to innovative outcomes'[12].

The Chartered Institute of Personnel and Development (CIPD) report *Game On! How to keep inclusion and diversity progress on track* calls for 'genuine, dynamic and systemic change'. It prompts organisations to 'be brave' and to demonstrate 'authentic leadership'[13].

7 http://www.forbes.com/sites/ekaterinawalter/2014/01/14/reaping-the-benefits-of-diversity-for-modern-business-innovation/
8 BIS 'The business case for equality and diversity' www.gov.uk/government/uploads/system/uploads/attachment_data/file/49638/the_business_case_for_equality_and_diversity.pdf January 2013
9 www.mckinsey.com/insights/organization/is_there_a_payoff_from_top-team_diversity
10 Forbes Insights: Global Diversity and Inclusion: Fostering Innovation Through a Diverse Workforce July 2011
11 http://www.hrmagazine.co.uk/article-details/exclusive-diversity-survey-hrds-talk-the-talk-but-dont-follow-through-with-strategy
12 Inspiring Women Engineers (The Royal Academy Of Engineering): http://www.raeng.org.uk/publications/reports/inspiring-women-engineers
13 http://www.cipd.co.uk/publicpolicy/policy-reports/diversity-progress-on-track.aspx

Balancing the art and science of business requires a commitment to the organisation's greatest asset – its people. Getting the culture right drives an approach that not only attracts talent and recognises individual competence, but supports the retention of in-house expertise from loyal and motivated staff.

The numbers add up…

Women's leadership strengths are the skills most critical to today's leadership success according to a survey of 64,000 people across 13 countries[14].

Businesses with more women in leadership have reported up to 69% higher financial results than those with fewer women leaders[15].

Companies with the highest representation of women in top management have achieved a 35% higher return on investment (ROI) and 34% higher total return to shareholders than those with the lowest representation[16].

And yet…

A report by Inspire - *The Balancing Act: a study of how to balance the talent pipeline in business, 2013* - found that the primary barrier to women's progression to the top of organisations is male-dominated corporate cultures[17].

Over half (53%) of the respondents believed that flexible working is the most effective way to reduce attrition generally within an organisation, with 'improved culture' coming a close second (49%).

In 2014, Prospect asked its female members working in STEM what would be the single most important change their employer could make. Their top priority was more flexible working hours and working arrangements. There was also a strong desire for flexible working to be available to all employees, regardless of gender and grade.

"I believe in the advancement of opportunities for women in STEM (or any other field) purely on grounds of fairness and equality, I think the case for encouragement, and contextually relevant actions to make it real, also comes strongly from a bottom line argument. It's about getting the best team in place."

Mark Thomas
IET Fellow - Guidance Adviser
(former Director of The European Communications Office)

14 "Feminine" Values Can Give Tomorrow's Leaders an Edge John Gerzema, Harvard Business Review blog, August 12, 2013 (https://hbr.org/2013/08/research-male-leaders-should-think-more-like-women/)
15 How Women Lead, by Sharon Hadary and Laura Henderson, 2012 http://howsuccessfulwomenlead.com/books/how-woman-lead/key-facts/
16 How Women Lead, by Sharon Hadary and Laura Henderson, 2012 http://howsuccessfulwomenlead.com/books/how-woman-lead/key-facts/
17 http://www.harveynash.com/inspire/documents/Inspire-TheBalancingAct_LR.pdf

2. MAKING THE CHANGE

From review to evaluation, this section outlines where organisations may consider beginning the work necessary to ensure a diverse and talent-rich workplace.

2.1 CONDUCTING A POLICY AND PROCEDURES REVIEW

Ideally, inclusion and diversity management are already built into an organisation's ethos and business-as-usual operations. For those organisations where this may not be the case, a starting point could well be a policy and procedures review of activity across the workforce.

Policy and procedures reviews provide a relevant learning focus, helping organisations to question what they are doing and why. There are opportunities to develop a framework for monitoring and evaluation and key benefits become clear.

"HR has become more strategic because of the recognition that, in the end, talent is what is going to make or break us[18]*."*

With Human Resources (HR) playing a key role, a policy and procedures review offers the chance to ensure that the opportunity for women to progress is as usual and common as for men.

Key activities in a policy and procedures review:

- embrace reflection
- explore routes to implementing best practice more easily
- highlight potential issues
- identify gaps
- recognise where processes may be improved and/or changed
- enable benchmarking against other organisations
- provide the evidence needed to gain the essential support and commitment of directors, senior management and staff to embed gender-diverse strategies and actions into a long term sustainable business plan

Research findings confirm that organisations with the best inclusion and diversity strategies have capitalised on the synergies that can be gained from having an inclusive HR and diversity strategy[19].

In parallel to the policy and procedures review, an organisation may want to consider how it appears to external audiences. For example, does the organisation look as if it's a business that welcomes men and women? Has anyone in the organisation taken a walk around both physically and virtually (online), to consider whether prospective women employees would think, at first sight, whether they would fit in?

18 Oxford Economics: Global Talent 2021 Report (https://www.oxfordeconomics.com/media/default/thought%20leadership/global-talent-2021.pdf)

19 The New Talent Acquisition Frontier, Integrating HR and Diversity Strategy in the Private, Public and Higher Education-Stylus, 2013

Studying how other organisations apply strategies to help gender and diversity, and how they are perceived by women, can offer valuable insight. Existing initiatives and league tables provide valuable information about how organisations compare and the opportunity to benchmark. Examples include:

- The Sunday Times 100 Best Companies to Work for
- The Times Top 50 Places Where Women Want to Work
- Diversity Inc Top 50 Companies and Specialist lists
- Great Place to Work®
- Opportunity Now: Gender and Wellbeing Benchmarking Survey and Awards
- WISE Awards
- Royal Academy of Engineering's Diversity Leadership Group

It may also be worth studying current schemes that offer standards and accreditation for employers supporting equality and inclusion and diversity initiatives.

Recruitment initiatives for women in STEM can contribute to enhancing an organisation's reputation, with alignment to brand becoming a key business benefit. Examples of this type of scheme include:

- *C2E Equality* Standard by Committed2Equality[20]
- *Athena Swan Charter* by the Equality Challenge Unit[21]
- Institute of Physics (IoP) *Project Juno*[22]
- *Think, Act, Report*[23]
- *National Equality Standard* by EY[24]

2.2 ADDRESSING WORKPLACE CULTURE

The whole organisation ideally will have a shared understanding of why including and engaging female candidates and employees are critical to the long-term success of the organisation.

Embracing inclusion and diversity means being alert to behaviour that can make minority groups feel unwelcome or disrespected. This relates to the image an organisation projects, internally and externally, as well as to behavioural norms.

Implementing a transparent inclusion and diversity strategy can contribute to an overarching framework for:

- support from the top
- nurturing talent across the workplace
- embedding the strategy into the organisation
- effective face-to-face training, allowing for interaction and discussion
- assigning accountability
- re-assessing the organisational culture including proactive career management of men and women and succession planning.

20 www.c2e.co.uk
21 www.ecu.ac.uk/equality-charters/athena-swan
22 www.iop.org/juno
23 www.gov.uk/think-act-report
24 www.ey.com/UK/en/Home/National-Equality-Standard

2.3 COMBATTING UNCONSCIOUS BIAS

Disadvantage in numbers

1/3 of working women in the UK feel disadvantaged in the workplace, with women believing men are offered greater opportunities at work.

57% of women surveyed felt that unconscious bias is the greatest barrier facing women in the workplace[25].

As a minimum, best practice calls for employees involved in recruitment and promotion processes to receive effective equality and unconscious bias training, best delivered face-to-face, allowing for interaction and discussion.

Growing evidence suggests unconscious bias can heavily influence recruitment and selection decisions. Several experiments using CV shortlisting exercises have highlighted bias by gender and ethnicity.

Unconscious bias refers to the biases we all have of which we are not in conscious control. These biases occur automatically, triggered by our brain making quick judgments and assessments of people and situations based on our background, cultural environment and our experiences[27].

A study of science faculties in higher education institutions[26] asked staff to review a number of applications. The applications reviewed were identical, apart from including the applicant's gender.

Findings from this study reported science faculties were more likely to:

- rate male candidates as better qualified than female candidates
- want to hire the male candidates rather than the female candidates
- give the male candidate a higher starting salary than the female candidate
- be willing to invest more in the development of the male candidate than the female candidate.

Some outward signs of unconscious bias are so subtle as to be barely noticeable resulting in 'micro-behaviours', more commonly referred to as 'everyday iniquities'. These might include, for example, a lack of warmth in a greeting, or a failure to interact with people that recruiters feel more biased against. While these behaviours might seem very insignificant, in some cases they may be damaging in the longer term.

25 http://www.theguardian.com/women-in-leadership/2015/jun/03/third-of-working-women-discriminated-against
26 Moss-Racusin et al. 2012
27 http://www.kcl.ac.uk/aboutkings/governance/diversity/bias.aspx

2.4 INVOLVING TRADE UNIONS

Trade union representatives are able to assist both employers and individuals by supporting them through training, which can ensure greater effectiveness when promoting diversity and inclusion.

Engaging workplace representatives in the design and implementation of equality, inclusion and diversity programmes can help to:

- positively influence policy development and staff satisfaction
- advise on and address any discriminatory practice
- reduce management time resolving problems and disputes.

Good work[28] provides for secure, interesting and fulfilling jobs and thrives on a workplace culture that promotes trust and fairness. While this requires leadership from the highest organisational level, it also needs workforce buy-in and action.

2.5 ESTABLISHING MEASUREMENTS AND TARGETS

63% of employers surveyed do not have guidance in place to measure diversity[29].

The key is not creating a separate report card for inclusion and diversity. Rather, that the current report card incorporates inclusion and diversity.

As inclusion and diversity have been redefined as strategic business advantages, quantitative and qualitative measurements have become more sophisticated, tied to business goals.

A good example of this is the Washington State Human Resources Measuring Diversity website,[30] which makes a large number of proposals.

28 Prospect Manifesto for Good Work (See Appendix B)
29 The IET's Engineering and Technology Skills and Demand in Industry Survey 2015
30 http://www.hr.wa.gov/DIVERSITY/DIVERSITYMANAGEMENT/Pages/MeasuringDiversity.aspx

3. RECRUITMENT

Building female talent within any organisation begins with recruitment. Best practice sees organisations reviewing their current position and setting a target to work towards, as well as monitoring the results as more women move through the organisation.

3.1 MONITORING RECRUITMENT DIVERSITY

Regularly reviewing the make-up of your workforce enables organisations to measure the impact of diversity recruitment initiatives.

Analysing recruitment outcomes is key. A best practice approach may include:

- reviewing diversity data for people entering and leaving the process at each stage
- being transparent about which areas of the business have fewer women and which have more.

3.2 CONSIDERING CORPORATE REPUTATION

Throughout the recruitment process, an organisation's corporate reputation is of critical importance.

From the image it presents to the public through to how it welcomes candidates into the workplace, an organisation is wise to ensure that it consistently portrays itself as somewhere where women can succeed.

3.3 WIDENING THE POOL OF FEMALE CANDIDATES

Diverse recruitment focuses on widening the pool from which candidates are sourced, enabling organisations to find the best person for the job.

To attract the most competent women, organisations might consider how they:

- present vacancies
- market corporate image
- promote opportunities.

Part of this involves considering how and where to advertise, concentrating on inclusivity and different ways to reach newer, wider audiences.

"It is important to measure progress to create better understanding within organisations and reinforce good practice: 'What gets measured gets done.'"

Peter Cheese
Chief Executive Officer of the Chartered Institute of Personnel and Development (CIPD)[32]

3.4 ADVERTISING ROLES TO ATTRACT FEMALE CANDIDATES

The way organisations write job descriptions and adverts can have a significant impact on whether women will be attracted to apply for a role.

Research indicates that women are more likely than men to rule themselves out if they do not meet all of the listed criteria[31].

If some skills can be learnt or developed on the job, it's essential to include this information.

3.5 SHORTLISTING APPLICATIONS

A robust and fair process for application shortlisting is vital.

A good tip is to remove information relating to characteristics known to trigger unconscious bias by selectors, ahead of application shortlisting.

3.6 SELECTION AND INTERVIEW

An organisation must be confident that everyone involved in interviewing and selection is properly trained and able to make a fair selection.

Candidates will perform better if they are at ease, enabling recruiters to select the most relevant person for the role.

3.7 APPOINTING AND PROMOTING

Fairness in the workplace is a vital part of a successful business. It is supported by the law - the Equality Act 2010[33] - and also makes good business sense in developing and managing an organisation.

The aim of the Equality Act is to improve equal job opportunities and fairness for employees and job applicants. To ensure these outcomes and to prevent discrimination, organisations are well advised to put policies in place and to act on them. It is important to make a reality of policies, not just to have them.

3.8 EVALUATING PROGRESS

Measuring progress depends on regularly monitoring workforce diversity.

Gaining feedback from applicants who drop out during the recruitment process or reject a job offer can provide useful insights for an organisation.

31 https://hbr.org/2014/08/why-women-dont-apply-for-jobs-unless-theyre-100-qualified
32 Given at the Joint IET and Prospect: Progressing Women In STEM Conference, 4th March 2015
33 See Appendix D

4. PROMOTION

Key elements relating to promotion of women:

- evolving the organisation to recognise better the talents of women within it
- establishing roles and processes which do not unfairly exclude women
- cultivating the ability of women candidates to compete in the selection process

4.1 EVOLVING THE ORGANISATION

Unconscious bias against women is a major obstacle preventing, in some cases, fair promotion on merit[34]. Thus, efforts to promote more women are likely to fail if they focus exclusively on the women themselves.

The **whole organisation** could respond better to the women it employs, by:

- providing support from the CEO and other leaders
- making gender equality part of the company's objectives
- ensuring that senior staff normalise diversity and gender equality, by raising these topics as part of business-as-usual.

Senior managers can articulate how a fairer, more diverse workplace and promotion of the best candidates will benefit all employees.

If senior staff struggle to understand how women perceive the organisation, 'Reverse Mentoring' can help. It's a technique, in which senior managers learn from junior women, about the difficulties they experience and their ideas for improvements.

Trade unions are also a factor for consideration and involvement when deciding on strategy, setting targets or quotas, formulating actions, implementing initiatives and reviewing progress.

Awareness-raising and training can be effective ways to tackle unconscious bias directly.

Challenging assumptions and stereotypes

It is relevant to challenge assumptions about where the next leaders will come from.

For example, if a company customarily fills the role of Production Manager by promoting from the Machining Workshop, as opposed to the Finishing Workshop, this could perpetuate a gender imbalance at senior level, if the female staff mostly work in Finishing.

Both Machining and Finishing can be critical to successful production so there are opportunities to openly discuss the option of promoting from other parts of the business. The essential point is not to shrink from challenging unhelpful assumptions and stereotypes.

34 What's holding women back? Tackling unconscious bias against women in STEM (see Appendix C)

Culture before numbers

Getting the full benefit through the increased promotion of women requires the organisation to embrace diversity. Simply increasing the numbers of women, without developing a culture that recognises and respects their talents, is less likely to deliver the best outcomes.

An example of best practice may also include spreading the message that women do not need to be replicas of the previous (male) incumbent to be accepted and valued in a senior role.

Continuous respect

It is crucial that everyone understands that discriminatory behaviour and harassment are no more tolerated off work premises than they are on them.

If social activities are a significant feature of the organisation, it may be worth organisations considering whether they are currently excluding women and how. Varying social outings can help to support diversity by signalling that an individual's gender, religion, age, etc. is not a bar to fully belonging in the team.

4.2 ESTABLISHING ROLES AND PROCESSES TO INCLUDE WOMEN

Taking care to include women, when defining roles

It can be helpful to define roles not only to include an individual's role within the organisation, but also to include other roles they may fulfill in a professional or voluntary capacity e.g. Chair of the Laboratory Governance Committee or Chair of School Governors.

- **Real need.** Some organisations unthinkingly reproduce historical roles. Once the organisation has defined a new role, the next step is to think carefully about what is really necessary. Any requirement likely to disproportionately exclude potential women candidates should be justified.
- **Helpful technology.** Optimising new technology (e.g. videoconferencing) can help to make some roles more compatible with family commitments, from which men and women may benefit equally.
- **Useful information.** Before finalising the role definition and person specification, liaising with the company's women's network may help. Its members may be able to identify why the company has previously been unsuccessful in promoting women into certain roles.
- **Clear criteria.** Written job descriptions and person specifications are important. Research shows that selection panels without clear criteria unconsciously make more gender-biased choices[35].

Selection Process

A fair selection process advertises a role openly and invites applications from all staff. It actively avoids relying on senior staff to identify 'preferred' candidates.

35 Uhlmann, E. L., & Cohen, G. L., (2005). Constructed criteria – Redefining merit to justify discrimination. Psychological Science, Vol 16, No. 6, [474–480]

Other important aspects of the selection process include:

- **Training.** It is important that all those involved in selection receive effective training, e.g. unconscious bias training.
- **Scheduling.** Ensuring the selection process works to a transparent schedule, that takes account of school holidays and does not disadvantage part-timers.
- **Responding.** Encouraging and responding positively to questions about the role and the process itself.

Selection Method

When formulating the interview questions and aptitude tests, it's essential to be as gender-neutral as possible.

Selection panels who are already alert to unconscious bias will ensure easier review of decisions, after each stage. This checks a fair selection process has been applied.

4.3 CULTIVATING COMPETITION FROM WOMEN CANDIDATES

Organisations may consider using appraisal processes to develop and encourage women to compete for promotion along with other ideas as noted below:

Conducting appraisals that guide women towards advice, support, staff networks and mentoring schemes, requires managers to be well trained and have a good understanding of unconscious bias.

Mentoring offers a helpful support service to many employees and can be particularly helpful for those considering career progression and promotions. Offering women employees a female mentor may also be another option to consider, but in doing so organisations should take care in not over burdening existing female mentors within the organisation.

Informal discussion groups, women's networks and seminar series are also ways of introducing women to senior figures.

An important point is to help unsuccessful candidates understand what they can do to be successful next time. For example:

- recognising that a candidate's internalised bias may lead them to exaggerate their deficiencies
- being honest and clear about the future potential for promotion
- guiding a person to development initiatives they may not already be using - e.g. mentoring, women's networks, conferences, etc.

5. RETENTION

To create an environment more conducive to retention, employers have the opportunity to consider an array of options and actions to improve the recruitment and promotion of women in STEM roles.

The long established trend of women leaving STEM roles at disproportionate levels has changed little in the 30 years of active attempts to address it[36].

Staff retention is a challenge for many organisations, regardless of the size or company reputation.

The cost of lost knowledge and expertise, insecurity among colleagues and lengthy searches for replacements can often have an enormous impact on an organisation's performance.

5.1 ENSURING FEMALE EMPLOYEES FEEL VALUED

Everyday communication to staff can have a huge influence on staff retention.

According to the *NES Global Talent Survey*, 45% of women working in the oil industry believe they do not get the same recognition as their male colleagues[37].

Remarks such as 'But you don't look like a scientist' or 'You're far too pretty to be interested in maths' reinforce a message that 'STEM is not for people like me'.

Retention can be improved by including diversity and inclusion within an organisation's strategy.

5.2 ENABLING FLEXIBLE WORKING

Increasing work flexibility to attract and retain more women

Many firms have learned that offering increased work flexibility, career scalability and providing choices is a powerful attraction feature for women. Deloitte offers a 'Mass Career Customisation Programme' which provides employees with an opportunity to reduce or increase their work responsibilities, work hours and travel depending on their current individual priorities[38].

The business case for flexible working is well-established. It can bring increases in productivity, access to a wider talent pool and improve staff retention.

The ability to work to maximise quality of life is increasingly important to millennials, to the extent that 39% of respondents to the *NES Global Talent Survey*[39] would consider taking less money in return for the opportunity to work more flexibly. This offers organisations the chance to attract and retain high quality talent with a benefit to the balance sheet.

"The lack of job mobility and career progression for flexible workers is a major factor in the failure of the female talent pipeline. Employers should be mindful not only of their glass ceilings but their sticky floors[40]."

36 IPPR: Women in Engineering – fixing the talent pipeline, 2014
37 www.nesglobaltalent.com
38 http://www.nnstoy.org/download/continuums-of-professional-practice/Deloitte%20Review%20-%20Mass%20Career%20Customization%20-%20Benko.pdf
39 www.nesglobaltalent.com
40 The timewise jobs index: http://timewise.co.uk/wp-content/uploads/2015/05/Timewise_Flexible_Jobs_Index.pdf

According to a *Catalyst* report,[41] more than 20% of high-potential women left their first job in a STEM industry for a job outside of the industry due to personal reasons, including child rearing and other family responsibilities. *Catalyst* states that these highly educated women are not opting out of the workforce, they are opting out of STEM industries.

As a result, more and more organisations are recognising the value of offering flexible working as a means to retaining staff at all levels.

Actions for employers

Flexible working can take many forms:

- part-time hours
- compressed working week
- job sharing
- mobile working
- home working
- term-time working

Technological advances, in recent years, make it much easier for many staff to fulfil their working commitments, without necessarily attending the workplace. For employers, this calls for more imagination in how they deploy their workforce. A primary focus on the impact an employee makes through his/her contribution, rather than the hours worked, can be a relevant consideration when thinking about flexible working.

A best practice option for employers to consider might be adopting a default flexible working option for all new roles, unless a good business reason precludes it.

Flexible working should not just be seen as an option for women, but available to all employees.

A formal implementation process would ensure the policy is consistently converted into practice across the business.

5.3 MANAGING CAREER BREAKS EFFECTIVELY

The Attrition Triangle demonstrates how companies are investing in talented women only to lose them before they reach senior management levels. "This gender-based brain drain is causing a shortage of women at board level[42]." It is likely that career breaks play a role in this exodus.

Managing staff as they prepare for a career break (e.g. maternity leave) and keeping in touch with them while they are away are key to ensuring an effective return to work.

Many women complain of a loss of confidence following a career break, but with relevant support this can easily be remedied.

Employers use a wide range of processes to ensure their staff not only return, but come back to a position that matches the employee's talents and skills.

Support can include:

- setting up women's networks
- buddy programmes
- Keeping-in-Touch (KIT) days.

41 High Potentials in Tech-Intensive Industries: The Gender Divide in Business Roles (Catalyst, 2014)
42 Your loss, Ioannidis & Walther 2010 (book)

5.4 SUPPORTING WOMEN RETURNERS

"50,000 women with SET qualifications or experience were not working. Of those who returned after a career break, only a minuscule 8,000 SET women re-entered the workplace into jobs that utilised their qualifications and expertise[43]."

Some women returners have reported, within approximately four to six weeks of returning to work following a career break, that they have regained their professional confidence and skills (although this is not prescriptive for all). Some may have reintegrated into senior managerial positions after career breaks of 10 to 20 years[44].

Organisations such as Deloitte and DaVita have found that re-recruiting formerly top-performing employees is a successful way to increase top quality staff. Some have used this type of 'boomerang approach' to attract former women STEM professionals back into an organisation.

Companies have noted that women returning from maternity leave very often return to work with valuable skills and behaviour learned or enhanced – such as patience, persistence and prioritisation.

The returner may have a fresh appreciation of the value of the position if they are welcomed back and encouraged, rather than merely tolerated because the law requires it.

A study by Harvard Business School found that highly-educated mothers are more likely to leave companies when they are passed over for high-profile work[45].

Implementing a returner programme and suitable return to work procedures can be helpful to returners and also beneficial to organisations.

43 Good Practice Guide, Recruitment and Selection: Competing in the war for talent (UK resource centre for women) www.mrc-cbu.cam.ac.uk/documents/equality/GPGrecruit.pdf

44 http://www.theguardian.com/women-in-leadership/2015/mar/23/the-five-things-i-want-to-tell-employers-about-women-returning-to-work

45 Harvard Business School Survey of 25,000 HBS graduates with MBAs retrieved https://hbr.org/2014/12/rethink-what-you-know-about-high-achieving-women

6. IN SUMMARY – CONCLUDING THOUGHTS

While it's possible to draw many conclusions from the work of the IET and Prospect programme to date, the collaboration points to several key principles to take forward into further guidance and recommendations.

- There is no one-size-fits-all solution - businesses know their own market and sector, making it relevant to approach equality and diversity with that in mind.
- Empty gestures cost money: to achieve benefits and avoid costs, businesses should view diversity as a strategic resource.
- Being strategic about equality and diversity means more than merely complying with legislation.
- Increasing inclusion and diversity in the workforce benefits organisations and individuals.
- Recruitment, promotion and retention of women in STEM roles is an issue for men as well as women - steps to promote gender inclusion and diversity can benefit the entire workforce.
- Unconscious gender bias is widespread and negatively affects women professionals in STEM.
- Commitment from senior figures is essential to effect improvement in inclusion, diversity and fairness.
- Improvement may require a culture change, not just reliance solely on written policies.
- Trade unions often play a constructive role in developing more diverse and fairer organisations.
- Recruiting more young people into STEM remains a challenge, but it is crucial to support the talent pool of women already qualified and working in STEM.

7. KEY RECOMMENDATIONS

1. **To develop user-friendly and relevant guidance for employers relating to the recruitment, promotion and retention of women who have been working in STEM roles for more than two years.**
   - It is recommended that organisations measure the diversity within their organisation to identify the initiatives that have an impact on attracting and retaining women in STEM careers.
   - Initiatives may include: the culture of the organisation; flexible working; face-to-face equality and unconscious bias training as well as impartial selection processes.

2. **To organise a Women in STEM returners conference, leading to the potential development of a user-friendly and relevant guidance document for employers that is bespoke to women returners in STEM-related job roles.**

3. **To explore the opportunity of collaborating further with various stakeholders, including employers, to formulate an all-party parliamentary group (APPG) for women working in STEM.**

4. **To gain further insight, through primary research, that explores how diversity in organisations is managed effectively.**
   - Leading from this analysis, stakeholders will consider the best route for wider dissemination of best practice relating to diversity management and organisational culture change.

It is anticipated that work will commence on these recommendations between 2015 - 2017.

If you would like to register an interest in contributing to the recommendations, please email one of the following people below:

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8. ACKNOWLEDGING OUR PARTNERS

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APPENDICES

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APPENDIX A

THE IET AND PROSPECT WORK PROGRAMME

The focus is centred on best practice and managing inclusion and diversity, as key components of a strategic business agenda.

PHASE I

Conference *Progressing Women in STEM Roles*, March 2015

- **Collective knowledge and experience**

  Attended by more than 80 representatives from industry, academia and government, predominantly from across the STEM sector. Conference speakers, subject experts and delegates pooled their collective knowledge and experience to drive a collaborative approach to best practice.

- **Recruitment, promotion, retention**

  The conference centred on taking forward discussion and ideas, to formulate guidance for employers of women in STEM roles, specific to three core areas: recruitment, promotion and retention.

- **Optimising inclusion and diversity management**

  The broad consensus was that there is no golden bullet. Rather that, to maximise impact, a realistic approach may involve a multitude of smaller activities. More specifically: optimising inclusion and diversity management aligned to women in STEM roles can contribute to a very successful and sustainable talent-rich organisation.

PHASE II

Published report following the *Progessing Women in STEM Roles* March 2015 conference

- **Actionable recommendations**

  Following the conference, to set up a working group of IET and Prospect members to review the published report and action relevant recommendations as a phased programme of work commencing in the Winter of 2015.

APPENDIX B

PROSPECT MANIFESTO FOR GOOD WORK

Although the economy has started to recover, all is not well in the world of work:

- GDP – the annual value of the goods and services produced by all sectors of the economy – has only just returned to the 2008 pre-recession level. This is the slowest recovery on record.
- Productivity has fallen: employment growth has mainly been in low-paid service sectors.
- The UK has one of the worst records among OECD countries for utilising skills at work effectively. Around 30% of the workforce is over-qualified for their current role.
- Real wages have typically fallen by around 8-10% – or around 2% – a year behind inflation over the last five years.
- Around one million people are on zero hours contracts, though this seriously under-estimates the scale of insecure and under-employment across the economy. 1.4 million people currently working part-time would prefer to have a full-time job.
- The quality of working life continues to deteriorate, with rising levels of stress and mental ill-health costing the UK around £70bn every year in lost productivity at work, benefit payments and health care expenditure.

These are challenges that Prospect members face in their everyday lives. Our members want to do work that is enjoyable, stretching and fulfilling, and they want their families and communities to have these opportunities, too.

Prospect is a politically independent trade union. We do not advise our members on how to vote, but we do believe that any political party aspiring to government should have a compelling vision of what good work looks like, as well as a programme to deliver it.

We have our own proposals, set out below. Our manifesto stems from consultation with our own members, as well as from dialogue with employers, professional bodies and other labour market experts. We would like to hear more politicians addressing this core agenda.

WHAT IS GOOD WORK?

Good work should not be optional.
It comprises:

Secure, interesting and fulfilling jobs

Job design is important, as is having clear and achievable responsibilities. Work should provide opportunities to learn, develop and grow – within a role, through lateral moves or by taking on greater responsibilities.

A culture based on trust and fairness

Acting fairly and being seen to act fairly are fundamental to creating a culture based on trust. This must include respecting difference and supporting and valuing diversity. Successful teams comprise individuals with different strengths, perspectives and backgrounds.

Choice and control over hours

Flexibility should be genuinely two-way. Wherever possible, employers should allow people flexibility over when and where they work. This would benefit the whole workforce as well as being key to attracting and retaining more women in STEM-based industries.

Reward and effort in balance

Open and transparent reward structures allow individuals to see and understand whether their pay is fair relative to others in the organisation. Prospect has no objection in principle to rewarding enhanced contribution fairly, but opposes systems that base performance assessment on forced distribution.

Degree of control over pace of work and environment

Work tempo is becoming ever more intense, while technology blurs boundaries between work and life outside. Individuals need to feel in control.

Employee voice

Many people would say employee voice is important to successful corporate engagement. Good employers recognise the value that union workplace representatives bring in resolving day-to-day problems at work and making workplaces fairer and safer.

WHAT WE WANT FROM POLITICIANS...

To underpin a good work culture, Prospect believes politicians should do the following:

- **Set out their vision** of a good workplace and a good job, and be prepared to debate their vision in public.
- **Commit to reform** of corporate governance to give greater emphasis to and accountability for the long-term implications of decision-making, including by shareholders.
- **Work with companies and other stakeholders** to devise measures of good work, giving them at least equal weight to the financial metrics that currently predominate; and mandate corporate reporting on this basis.
- **Work with professional bodies and trade unions** to revitalise the role and authority of human resources managers as guardians of good practice.
- **Consult on strengthening the institutional framework for good work**, including monitoring and enforcement mechanisms.
- **Improve access by independent unions to workplaces** without effective mechanisms for employee voice, recognising that collective bargaining leads to fairer workplaces.
- **Commit to legislating for works councils** to promote genuine collaboration and consultation on strategic decisions.
- **Commit to leading by example** for the staff government directly employs and by leveraging public procurement to improve supply chain practices, including investment in high quality training and skills and a decent working environment.

Good work is not a zero-sum game. Britain needs more good jobs in high performing workplaces to rebalance the economy and sustain a fairer and stronger economy. As US psychologist Frederick Herzberg recognised over 50 years ago, people will do a good job if given a good job to do.

www.prospect.org.uk/goodwork

prospect

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APPENDIX C

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What's holding women back?

Tackling bias against women in STEM

In STEM fields, evidence indicates that women do not progress into senior roles as often as men. There has been much debate on why this is so[1, 2].

Could it be that women simply do not have the talent or the intelligence? This notion has resurfaced in different forms over many years. Again and again, it has been refuted by the evidence[3, 4].

An alternative explanation for the disparity in women's progression is that, even if they experience a level playing field at work and at home, women still choose to subordinate their careers to their domestic responsibilities more often than men do. But the available evidence does not support this hypothesis either[1, 2, 5].

If women are not less talented or less ambitious, can there be a more subtle, but still powerful, force holding women back. Is there a bias acting against women?

In 2012 this debate was energised by research which demonstrated senior scientists' bias against candidates with female names, compared to identical candidates with male names[6]. The research indicated female candidates were less likely to be offered a job, and would be offered a lower salary. The researchers found the bias was unconscious and unintentional. Nevertheless, both men and women judged women to be less competent, purely because of their gender.

While it stimulated debate, this research merely added to an already extensive body of evidence demonstrating unconscious bias against women, especially in STEM fields[7, 8, 9, 10, 11].

References:

1 Valian, V., (2006). Women at the top in science – and elsewhere, in Ceci, S. & Williams W. (Eds.), *Why aren't more women in science? Top researchers debate the evidence*. American Psychological Association.

2 Fouad, N. A., & Singh, R., (2011). *Stemming the tide: why women leave engineering*. University of Wisconsin Milwaukee.

3 Spelke, E., (2005). Sex differences in intrinsic aptitude for mathematics and science? A critical review. *American Psychologist*, Vol 60, No. 9, 950–958.

4 Handelsman, Jo, *et al.* "More women in science." *Science* 309.5738 (2005): 1190–1191.

5 Long, J. S. (Ed.). (2001). *From scarcity to visibility: Gender differences in abilities in the careers of doctoral scientists and engineers*. Washington, DC: National Academy Press.

6 Moss-Racusin, C. A., Dovidio, J. F., Brescoll, V. L., Graham, M. J., & Handelsman, J. (2012). Science faculty's subtle gender biases favor male students. *Proceedings of the National Academy of Sciences*, 109(41), 16474–16479.

7 Heilman, M. E., Wallen, A. S., Fuchs, D., & Tamkins, M. M. (2004). Penalties for success: Reactions to women who succeed at male gender-typed tasks. *Journal of Applied Psychology*, 89, 416–427.

8 Norton, M. I., Vandello, J. A., & Darley, J. M. (2004). Casuistry and social category bias. *Journal of Personality and Social Psychology*, 87, 817–831.

9 Uhlmann, E. L., & Cohen, G. L., (2005). Constructed criteria – Redefining merit to justify discrimination. *Psychological Science*, Vol 16, No. 6, 474–480.

Why does Unconscious Bias (UB) matter?

UB matters to individuals. Even a very small gender bias, applied over and over through a whole career (job interviews, appraisals, grant applications), will add up to a substantial and unfair disadvantage[12].

UB matters to organisations. Companies are damaged by their failure to exploit the available talent. There is a clear business case for diversity in the workforce[13, 14].

And UB matters to society. How many scientific breakthroughs and brilliant engineering solutions are we missing out on because UB has denied career opportunities to women who deserved them?

Companies are beginning to recognise UB and invest resources to tackle it. Actions include UB training, adopting gender-neutral language, promoting female role models and changing recruitment and promotion processes. Increasingly, organisations are treating diversity as seriously as other business objectives by setting targets or quotas and monitoring performance against them.

For centuries, in some fields there has been a de facto quota for men of almost 100%. UB is, in effect, perpetuating quotas for men. If counter-quotas for women are not adopted, organisations must take other effective action to establish real equality. A weak hope that advancement will arise "by merit" is not enough; selection by merit is exactly what UB prevents.

We must stop holding women back.

Prospect works with employers to tackle UB. As a trade union, Prospect can help employers develop effective equality and diversity strategies. And where employers fail to take UB seriously, Prospect will defend its members against unfair treatment.

Join Prospect today – www.prospect.org.uk

10 Steinpreis, Rhea E., Katie A. Anders, & Dawn Ritzke. The impact of gender on the review of the curricula vitae of job applicants and tenure candidates: A national empirical study. *Sex roles* 41.7–8 (1999): 509–528.

11 Wold, Agnes, & C. Wennerås. Nepotism and sexism in peer review. *Nature* 387.6631 (1997): 341–343.

12 Martell, R. F., Lane, D. M., & Emrich, C. (1996). Male-female differences: A computer simulation. *American Psychologist*, 51, 157–158.

13 Hunt, V., Layton, D., & Prince, S. (2014). *Diversity matters*. McKinsey & Company.

14 Macdonald, A. (2014). "Not for people like me?" Under-represented groups in science, technology and engineering. *Women in Science and Engineering*.

See also:

Jennett, M (2013). *Stereotypes stop you doing stuff – Challenging gender stereotypes through primary education*. National Union of Teachers. Available at www.teachers.org.uk/files/stereotypes-stop.pdf

This briefing uses a typeface called *Transport*. It was designed by British typographer and designer Margaret Calvert, a senior figure in the creation of the UK's motorway signage system.

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APPENDIX D

UK LAW – THE EQUALITY ACT 2010

A summary of key points affecting women in STEM

Much current legislation, especially that relating to equality and discrimination, is good news for both businesses and employees.

This appendix provides a summary from the Equality Act 2010 of the key legislative issues that affect women in STEM.

1. GENERAL EQUALITY LAW

The Equality Act 2010 (EA10) makes it unlawful for an employer to discriminate against employees because of their gender. Both men and women are protected under the Act. There are four types of sex discrimination:

1. **Direct discrimination:**

   Treating someone less favourably because of their sex, or because of that of someone with whom they associate.

2. **Indirect discrimination:**

   Where there is a policy, practice or procedure that applies to all workers, but particularly disadvantages workers of a particular sex (this type of discrimination can only be justified if it is a proportionate means of achieving a legitimate aim).

3. **Harassment:**

   When unwanted conduct related to sex has the purpose or effect of violating an individual's dignity or creating an intimidating, hostile, degrading humiliating or offensive environment for that individual.

4. **Victimisation:**

   Unfair treatment of an employee who has made or supported a complaint about sex discrimination.

   Employers should ensure they have policies in place that are designed to prevent discrimination in:

   - recruitment and selection
   - pay determination
   - training and development
   - selection for promotion
   - discipline and grievances
   - addressing bullying and harassment.

2. EQUAL PAY

The law on sex discrimination in pay and other contract terms form part of the EA10. Like the Equal Pay Act 1970, the EA10 operates by automatically implying a *sex equality clause* into every contract of employment, entitling an employee to equal pay – including the right to sick pay, bonus payments, annual leave, overtime, mortgage interest allowance and special retirement privileges, as well as certain non-financial contractual benefits, such as the right to a company car or access to social benefits. Women are able, despite abolition of the statutory equal pay questionnaire in April 2014, to ask structured questions in writing about their pay.

From 1 October 2014 Employment Tribunals were given the power to order an employer that lost an equal pay claim to undertake an equal pay audit. It is hoped that all employers will see the benefit of conducting regular equal pay audits and that this will become best practice.

3. DISCRIMINATION LAW: PREGNANCY & MATERNITY

In any one year there are approximately 441,000 pregnant women at work (www.tuc.org.uk/publications.2014) and yet statistics pertaining to discrimination against pregnant women are cause for concern. Under the Employment Rights Act 1996 (ERA96) it is unlawful to dismiss a woman by reason of her "pregnancy, childbirth or maternity leave or other pregnancy related reason".

As well as unfair dismissal claims, pregnant women who are treated badly due to their pregnancy, childbirth or maternity leave may also have claims under the ERA96. A dismissal and/or detrimental treatment may also amount to pregnancy and maternity discrimination under the EA10, which identifies "pregnancy and maternity" as a protected characteristic.

4. POSITIVE ACTION

The EA10 gives employers the right to engage in positive action to support people with a "protected characteristic" where they have identified an under-represented group in the workplace. Employers are also allowed – but not compelled – to engage in "voluntary positive action" in recruitment and promotion processes. This provides employers, when presented with two "equally qualified" candidates, with the option of selecting the candidate from the under-represented group (as long as there is evidence of under-representation).

The term 'positive action' refers to a number of methods designed to counteract the effects of past discrimination and to help abolish stereotyping. Positive action is often confused with positive discrimination.

Positive discrimination, which generally means employing someone because they come from a deprived group in spite of whether they have the relevant skills and qualifications, is unlawful.

For example, positive action provides employers, when presented with two "equally qualified" candidates, with the option of selecting the candidate from the under-represented group (as long as there is evidence of under-representation).

5. FLEXIBLE WORKING

A large number of women continue to take primary responsibility for childcare (and similarly dependent care for elderly relatives) but changes to the law on flexible working, from 30 June 2014, gave all employees the statutory right to request a change to their contract terms to work flexibly, as long as they have worked for the employer for 26 weeks.

This not only provides the opportunity to dispel the notion that lack of part-time opportunities suggests incompatibility with a STEM career, but also expands the range of opportunities for part-time working, job-share or career break initiatives.

6. SHARED PARENTAL LEAVE (SPL)

The new statutory system of shared parental leave and pay that came into force on 5 April 2015 was introduced with the aim of enabling all eligible mothers, fathers, partners and adopters to choose how to share time off work after a child is born or placed for adoption. (http://www.acas.org.uk/index.aspx?articleid=4911)

Please Note:
The Information in this guidance document is current up to the date of printing (November 2015). For the most up-to-date information on UK Equality Law, please refer to the UK Government website: www.gov.uk/equality-act-2010-guidance. Legal information is provided for guidance only and should not be regarded as an authoritative statement of the law, which can only be made by reference to the particular circumstances which apply. It may, therefore, be wise to seek legal advice.

APPENDIX E

FURTHER READING

Legal

The Equality Act 2010
https://www.gov.uk/equality-act-2010-guidance

Equality

The Equalities and Human Rights Commission
http://www.equalityhumanrights.com/
Book: Making Equality Work, by Shahnas Ali, Christine Burns and Loren Grant

Government Equalities Office: guidance for employers on how best to implement positive action:
https://www.gov.uk/government/publications/employers-step-by-step-guide-to-positive-action-in-recruitment-and-promotion

Diversity Strategy and Action Plans

10 Steps - a framework for sustaining and progressing women in STEM.
Developed jointly by the Royal Academy of Engineering's Diversity Leadership Group, WISE and their employer partners.
https://www.wisecampaign.org.uk/consultancy/industry-led-ten-steps

Implementing a successful diversity and inclusion strategy
http://www.charlottesweeney.com/blog/2014/11/21/implementing-a-successful-inclusion%20and%20diversity-and-inclusion-strategy/

PORTIA: Effective strategies for gender equality in science
http://www.portiaweb.org/

Forbes: Reaping the benefits of inclusion and diversity for modern business innovation
http://www.forbes.com/sites/ekaterinawalter/2014/01/14/reaping-the-benefits-of-diversity-for-modern-business-innovation/

ACAS: Delivering equality and inclusion and diversity
http://www.acas.org.uk/media/pdf/l/e/Acas_Delivering_Equality_and_Diversity_(Nov_11)-accessible-version-Apr-2012.pdf

Kings College London: Equality Objectives & Action Plan 2012-2016
https://www.kcl.ac.uk/governancezone/GovernanceLegal/Equality-Objectives-2012-2016.aspx

Prospect Manifesto for Good Work
http://www.prospect.org.uk/campaigns_and_events/national_campaigns/goodwork/index?_ts=1

Benchmarking and Standards

Committed2Equality is a National Equality Standard, designed to enable organisations to reach their equality potential and demonstrate their equality and inclusion and diversity working practices.
http://www.c2e.co.uk

Equality Challenge Unit: Athena Swan Charter
ECU's Athena SWAN Charter was established in 2005 to encourage and recognise commitment to advancing the careers of women in science, technology, engineering, maths and medicine (STEMM) employment in higher education and research.
http://www.ecu.ac.uk/equality-charters/athena-swan/

European Commission: Implementation Checklist for Diversity Management
For organisations wanting to get started with inclusion and diversity management, the following document is a good resource and offers an extensive implementation checklist.
http://ec.europa.eu/justice/discrimination/files/checklist_diversitymanagement_en.pdf

New Talent Management Paradigm
http://www.diversityjournal.com/13635-new-talent-management-paradigm/

Institute of Physics: Project Juno
The aim of Juno is to recognise and reward university departments that can demonstrate they have taken action to address the under-representation of women in university physics and to encourage better practice for both women and men.
http://www.iop.org/policy/diversity/initiatives/juno/index.html

Measurement

Washington State Human Resources: Measuring Diversity
http://www.hr.wa.gov/DIVERSITY/DIVERSITYMANAGEMENT/Pages/MeasuringDiversity.aspx

Canadian Institute of Diversity and Inclusion (CIDI): What gets measured gets done.
http://www.ccdi.ca/reports/what-gets-measured-gets-done.pdf

Australian Government: How to set gender inclusion and diversity targets
https://www.wgea.gov.au/sites/default/files/SETTING-GENDER-TARGETS-Online-accessible.pdf

Flexible working

Code of practice on handling in a reasonable manner requests to work flexibly
http://www.acas.org.uk/media/pdf/f/e/Code-of-Practice-on-handling-in-a-reasonable-manner-requests-to-work-flexibly.pdf

Shared parental leave: a good practice guide for employers and employees
http://www.acas.org.uk/media/pdf/p/a/Shared-Parental-Leave-a-good-practice-guide-for-employers-and-employees.pdf

The Timewise flexible jobs index
http://timewise.co.uk/wp-content/uploads/2015/05/Timewise_Flexible_Jobs_Index.pdf

ACAS: Flexible working and work-life balance
http://www.acas.org.uk/media/pdf/4/n/Flexible-working-and-work-life-balance.pdf

Unconscious Bias

Kings College London: Equality and inclusion and diversity: Unconscious bias
http://www.kcl.ac.uk/aboutkings/governance/diversity/bias.aspx

Implicit Association Tests (IATs)
Psychologists at Harvard, the University of Virginia and the University of Washington have created a range of Implicit Association Tests (IATs), to measure unconscious bias.
https://implicit.harvard.edu/implicit/

The Equality Challenge Unit: Unconscious bias
http://www.ecu.ac.uk/guidance-resources/employment-and-careers/staff-recruitment/unconscious-bias/

Marshall ACM: What is unconscious bias training?
http://www.marshallacm.co.uk/news/what-is-unconscious-bias-training/

CDO Insights: Proven strategies for addressing unconscious bias in the workplace
http://www.cookross.com/docs/UnconsciousBias.pdf

Prospect Union: What's holding women back? Tackling bias against women in STEM
https://library.prospect.org.uk/documents/201500309_unconscious_bias_-_whats_holding_women_back

Recruitment

How to conduct diverse recruitment
http://www.bitc.org.uk/sites/default/files/how_to_conduct_diverse_recruitment1.pdf

UK Resource Centre for Women: Competing in the war for talent
https://www.mrc-cbu.cam.ac.uk/documents/equality/GPGrecruit.pdf

Race for Opportunity: How to conduct diverse recruitment
http://raceforopportunity.bitc.org.uk/sites/default/files/kcfinder/files/RaceforOpportunity/DiverseRecuitment/How%20To%20Conduct%20Diverse%20Recruitment.pdf

Looking for bold recruitment approaches: best practices for recruiting women STEM women
http://www.eremedia.com/ere/looking-for-bold-recruiting-approaches-best-practices-for-recruiting-stem-women-and-diversity-candidates-part-2-of-2/

Anita Borg Institute: Solutions to recruit technical women
http://anitaborg.org/wp-content/uploads/2014/01/AnitaBorgInstitute_SolutionsToRecruitTechnicalWomen_2012.pdf

Retention

The Royal Society of Edinburgh – tapping all our talents
https://www.royalsoced.org.uk/cms/files/advice-papers/inquiry/women_in_stem/tapping_talents.pdf

Catalyst: High Potentials in Tech-Intensive Industries: The Gender Divide in Business Roles
http://www.catalyst.org/knowledge/high-potentials-tech-intensive-industries-gender-divide-business-roles

Race for Opportunity: Bridging the Value Gap
http://raceforopportunity.bitc.org.uk/sites/default/files/kcfinder/files/RaceforOpportunity/bridging_the_value_gap_toolkit.pdf

Returners

Institute of Physics: Managing a career break guidance document:
http://www.aps.org/programs/women/resources/upload/CareerBreaksIOP.pdf

Women in STEM: women returners
http://www.womeninstem.co.uk/recruiting-women-in-stem/how-stem-employers-can-benefit-from-encouraging-women-returners

Guardian: The five things I want to tell employers about women returning to work
http://www.theguardian.com/women-in-leadership/2015/mar/23/the-five-things-i-want-to-tell-employers-about-women-returning-to-work

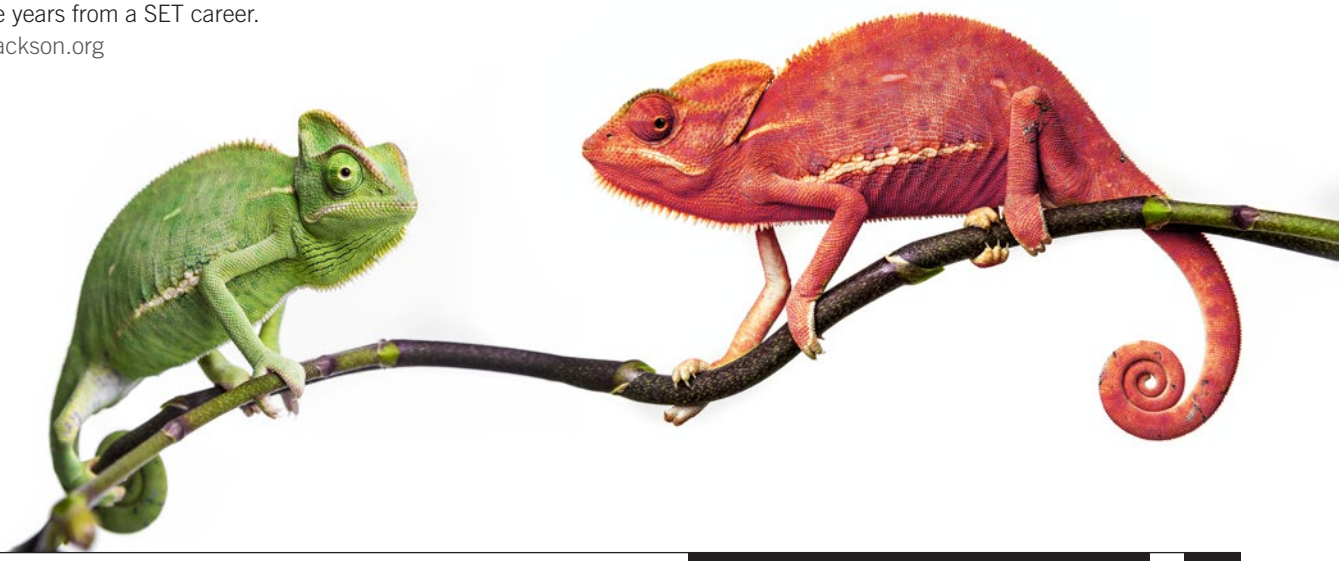
Women's Business Council: Maximising women's contributions to future economic growth
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/204751/DCMS_WBC_Full_Report_v1.0.pdf

Women returners to business
Helping experienced professionals get back to work after an extended career break.
http://corp.womenreturners.com/

MentorSET – a mentoring scheme for Women in STEM
http://www.mentorset.org.uk/

Wellcome Trust: Getting back into research after a career break
http://www.wellcome.ac.uk/stellent/groups/corporatesite/@msh_peda/documents/web_document/wtp057274.pdf

The Daphne Jackson Trust
A fellowship scheme that is aimed at women and men who have taken a break of at least three years from a SET career.
www.DaphneJackson.org



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