NOTE: Since this submission was made TGAC has re branded as the Earlham Institute.
In order to maintain confidentiality this publicly released document has been redacted.

Athena Swan Application
April 2016

Registered company number: **06855533**

Athena SWAN Bronze institute award application

Name of institute:
The Genome Analysis Centre

Name of Research Council that governs institute:
BBSRC

Date of application:
29 April 2016

Date of Institute membership to Athena SWAN:
24 February 2016

Contact for application:
Christine Fosker

Email:
christine.fosker@tgac.ac.uk

Telephone:
01603 450899

Institute website address:
http://www.tgac.ac.uk/

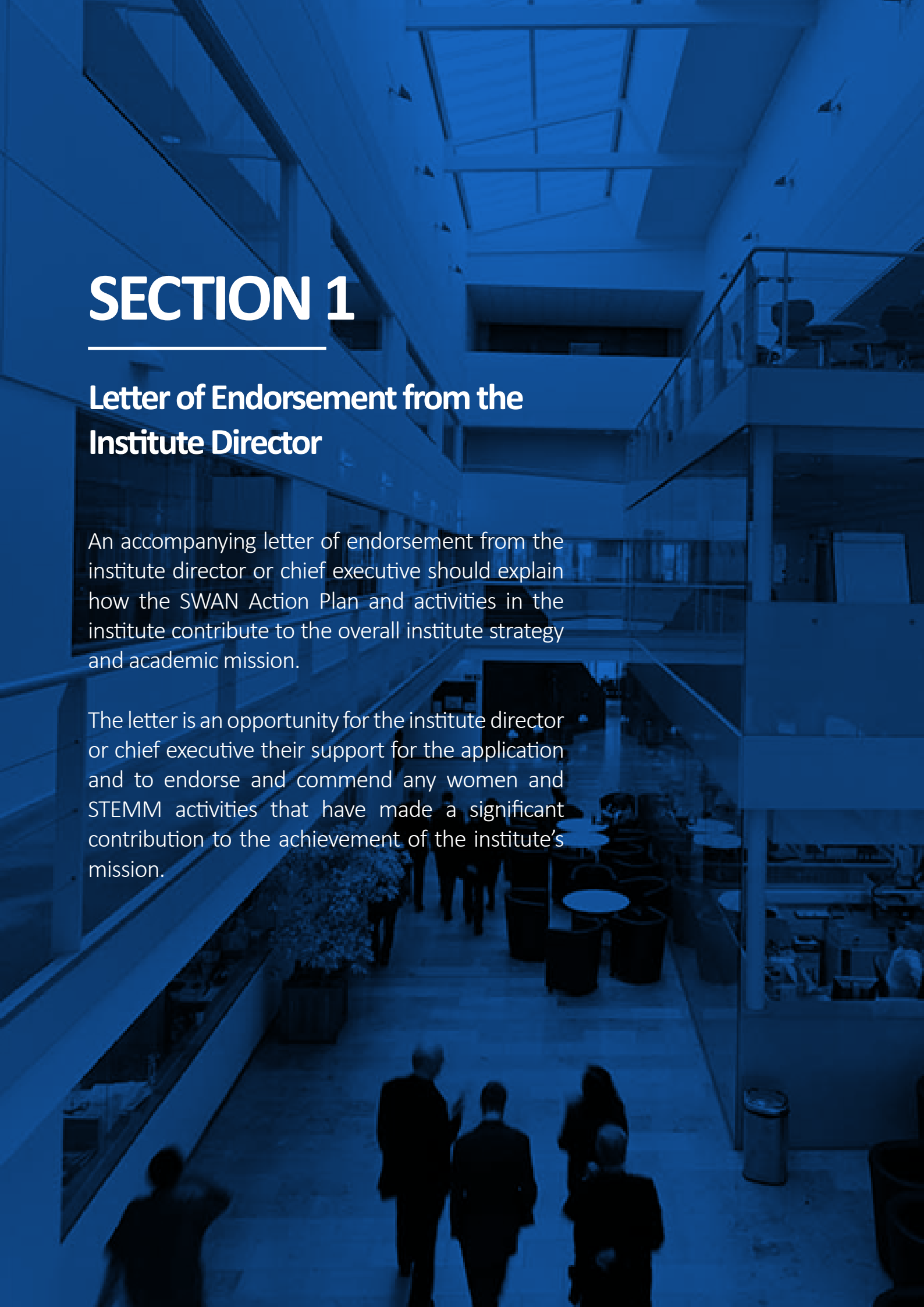
Athena SWAN **Bronze Institute** awards recognise that in addition to its own formal policies the institute is working to promote gender equality and to address challenges particular to the discipline.

Not all organisations use the term 'institute' and there are many equivalent academic groupings with different names, sizes and compositions. The definition of an 'institute' for SWAN purposes can be found on the Athena SWAN website. If in doubt, contact the Athena SWAN Officer well in advance to check eligibility.

It is essential that the contact person for the application is based in the institute.

Sections to be included

At the end of each section state the number of words used. Click here for additional guidance on completing the template.



SECTION 1

Letter of Endorsement from the Institute Director

An accompanying letter of endorsement from the institute director or chief executive should explain how the SWAN Action Plan and activities in the institute contribute to the overall institute strategy and academic mission.

The letter is an opportunity for the institute director or chief executive their support for the application and to endorse and commend any women and STEMM activities that have made a significant contribution to the achievement of the institute's mission.

Athena SWAN

Equality Challenge Unit

7th floor, Queens House
55/56 Lincoln's Inn Fields
London
WC2A 3LJ

Dear Ms Dickinson

Athena SWAN Application: Letter of Endorsement

I am writing to give my full support to this application for an Athena Swan Bronze Award by The Genome Analysis Centre. I am personally committed to the successful implementation of our Action Plan and I believe that for TGAC to succeed it must have an open and fair working environment where everybody is valued and people feel they can progress on merit alone.

As a father of four, with a partner in full-time work as a teacher, I have a deep appreciation of how flexible working has enabled me to support my children and my partner in her career. I have supported the implementation of Athena SWAN commitments at the University of Liverpool, where I mentored researchers and students to succeed while balancing the pressures of academia and bringing up a family.

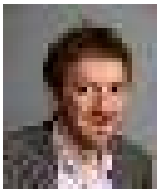
The last few years have been a transitional period for TGAC. I joined on April 1st, replacing the interim Director, Dylan Edwards. Dylan had previously led the submission of the Bronze Award for the School of Biological Sciences (University of East Anglia), and has provided support and guidance throughout the development of our application. I have been extremely impressed with the initiatives in place to support women scientists, and by the ethos of TGAC which embraces the principles of Athena SWAN. As a member of the Norwich Research Park, we also share best practices with our neighbours.

TGAC is fortunate to have two inspirational women on the executive team, both highly active members of the self-assessment team, readily implementing initiatives to deliver on our Action Plan. Since its inception, TGAC has benefitted from the leadership of strong female scientists such as Jane Rogers (founding Director), which we plan to celebrate this year. Also Janet Thornton, an eminent scientist and current Trustee Director, has recently delivered a presentation at TGAC on her experience of managing a highly successful research career while enjoying her family life.

As a developing institute in a rapidly evolving field, TGAC has an important role to play in training and supporting a new generation of researchers in genomics. However, our field is reliant on computer science and mathematics, subjects which suffer from low female representation, starting at the undergraduate level. Our doctoral and visiting student populations have gender parity but we still observe a considerable gender imbalance at the postdoctoral level. As such, diversifying our applicant pool and supporting the development of early career researchers form the core pillars of our Action Plan at Bronze level. This analysis has led to the formation of a working group on training for women in computing, with involvement from students and all teams within the Institute. This initiative exemplifies our highly collaborative working culture, and dedication to creating a diverse research community in genomics.

Underpinning everything we do is a commitment to develop and nurture the best staff we can recruit to TGAC. The action plan we have developed will improve, not only our mission for gender equality, but will advance everything we do as an institute.

Yours sincerely



Professor Neil Hall

Director, The Genome Analysis Centre

SECTION 2

The self-assessment process

Describe the self-assessment process. This should include:

- A description of the self-assessment team (SAT): members' roles (both within the institute and as part of the team) and their experiences of work-life balance
- An account of the self-assessment process: details of the self-assessment team meetings, including any consultation with staff or individuals outside of the institution, and how these have fed into the submission.
- Plans for the future of the self-assessment team, such as how often the team will continue to meet, any reporting mechanisms and in particular how the self-assessment team intends to monitor implementation of the Action Plan.

Description of the Self-Assessment process

To initiate work on Athena SWAN while limiting the administrative burden on its researchers, TGAC has allocated a full-time project manager to perform background research, to acquire and analyse the necessary data, to support the self-assessment team (SAT) and to facilitate the implementation of activities resulting from the Action Plan. This role was based in the Research Faculty Office to ensure ongoing communication with researchers and students on all aspects of the application including recruitment, promotion and training. Considering the impact of this process on all aspects of our workplace, members of the SAT were invited from wide ranging roles and groups within this Institute.

Table 1: Members of the Self-Assessment Team

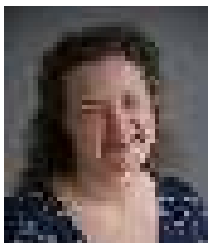
 **Christine Fosker** *Head of Research Faculty Office and Chair of the Athena Self-Assessment Team*	Christine joined TGAC in its early days over 5 years ago and has seen the Institute grow from 20 to over 100 staff. She is a PhD qualified scientist in the field of Genomics/Bioinformatics and joined the Institute as Head of Directorate to support the founding Director set-up the Institute's governance and administration. She is now Head of the Research Faculty Office responsible for scientific administration supporting the Director of Science with Faculty developments, strategy development and project management of the complete life-cycle of the Institutes research grants. She is the first Post-Graduate Research Director for the Institute and has established and administers the Fellowship programme, targeted at early career Computer Biologists.
 **Audrey Heppleston** *Project Manager (Athena SWAN), Research Faculty Office*	Audrey is coordinating the first Athena SWAN submission for TGAC. She had both of her children during her doctoral studies in developmental evolutionary biology, during which she has equally shared childcare responsibilities with her husband, also in academia. Following her PhD, she worked as a policy analyst for the Government of Canada and has contributed to implementing gender-based analysis in her department.
 **Sarah Cossey** *Director of Operations*	Sarah is a professional accountant and project manager with extensive experience across the public and private sector. Sarah is part of a dual career couple, has had two periods of maternity leave, and also managed a 9 year career commuting between Norfolk and London, part of which she worked condensed full time to balance work and home life. Sarah has always supported Equality and Diversity in the workplace, and is TGAC's senior representative. Sarah has facilitated job share arrangements and part-time flexible work in the lab in the Operational division.

Table 1: Members of the Self-Assessment Team

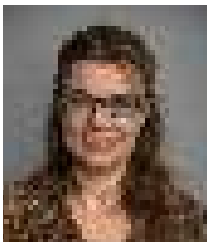
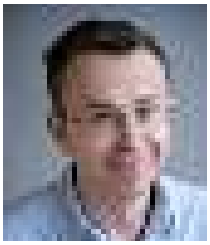
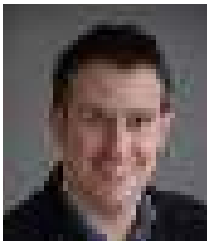
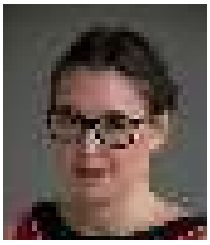
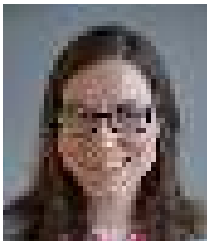
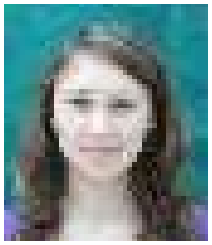
 **Federica Di Palma** *Director of Science*	As Director of Science Federica leads and manages the Research Division and is part of the executive team alongside the Director of Operations. Part of a dual research career couple, Federica had four boys during her academic career in America, interviewing at TGAC while eight months pregnant. Her husband commutes daily to Cambridge, flexible working is essential to making their family life work. Federica has experience previously of establishing career tracks at the Broad Institute and has implemented a tenure track process at TGAC.
 **David Swarbreck** *Group Leader, Regulatory and Environmental Genomics*	David leads the Regulatory and Environmental Genomics Group, he has experience of line managing a team with a broad range of experience (undergraduate students, MSc and PhD level) with backgrounds from a variety of disciplines (computer science, bioinformatics, biology). He believes strongly that it is possible to achieve a more productive work environment by supporting flexible working arrangements to help resolve work-life conflicts. David took paternity leave for his daughter and has himself taken advantage of flexible working, his wife is a research fellow at the University of Cambridge so he is keenly aware of the challenges for duel career couples who want to meet their career aspirations in scientific research.
 **Richard Leggett** *Project Leader, Data Infrastructure & Algorithms*	Richard is a Project Leader in bioinformatics, having joined TGAC initially as a Scientific Programmer. He is father to a 3-year old and married to a self-employed community engagement consultant who fits her work around their son's pre-school. Richard has previously made use of short-term flexible working in order to help care for his son.
 **Chris Watkins** *Head of Project Management, Platforms and Pipelines*	Chris joined TGAC in 2011 as Project Manager after previously working at the University of Bradford in the Centre for Visual Computing. The return to Norwich was to support Chris' wife who has her own career as a Research Associate at UEA. Chris and his wife work full-time and have a 2-year old child who is in full-time childcare.

Table 1: Members of the Self-Assessment Team

 **Darren Heavens** *Team Leader P&P*	Darren joined TGAC in September 2009 and has over 27 years' experience working in the genomics industry. His career progressed from being a research technician, when he completed his degree part-time, through to running his own group for a major cancer charity, to being Operations Manager for the JIC Genome Laboratory and is currently a Team Leader in the Platforms and Pipelines group. With two grown up daughters he appreciates the importance of a good work life balance and strives for recognising and rewarding excellence and transparency in the workplace.
 **Emily Angiolini** *Scientific Training and Education Team Manager*	Emily joined TGAC in June 2009, before it officially opened. Emily has experience working in multiple roles at TGAC starting as Head of Directorate Office but was involved in numerous aspects relating to setting up the institute. During her time at TGAC, Emily has taken two periods of maternity leave and was able to return to work four days a week. Emily understands the trials of trying to juggle family and home life with three small children and balancing this with work since her husband works full time, travelling for work across the UK. In addition to this Emily also volunteers as a patient representative on two NHS committees relating to diabetes in pregnancy and specialist maternity services.
 **Lisa Hunt** *Office Manager, Business Support*	Lisa joined The Genome Analysis Centre in 2013 as an Office Manager, managing the Business Support group. During her career she has taken two periods of maternity leave and in her current role, is able to work from home one afternoon a week to balance her professional role and personal role as a single mother to 2 children. Lisa fully appreciates and understands the need for both parents to have the flexibility to attend to family commitments.
 **Pirita Paajanen** *Postdoctoral Researcher and TGAC Equality and Diversity Champion*	Pirita joined TGAC as a Computational Biologist on a fixed term contract in 2014 and she benefited from working part-time for the first two months of her contract. She represents TGAC in the ResNet Committee, the network for women working in research across the Norwich Research Park. She has two children, and her husband has a scientific career. Following her maternity leave, she changed career from mathematics to bioinformatics and was supported in this change by flexible working arrangements at the Sanger Institute.

 **Claudia Paicu** *Doctoral Researcher, Bioinformatics*	Claudia began a joint PhD studentship between TGAC and UEA in bioinformatics in October 2013. With a background in Computer Science, the current focus of her research is to develop a new algorithm for microRNA detection and analysis. Claudia has also participated in meetings within the Schools of Computing Sciences and Mathematics at UEA as part of their work on Athena Swan.
 **Alison Batty** *HR Manager, Norwich BioScience Institutes (Until January 2016)*	HR Manager, Norwich BioScience Institutes Alison joined in 2009 as HR Manager and is CIPD qualified with over 20 years' experience of working in busy HR environments. Following a period of maternity leave, Alison returned to a job share role.
 **Steve James** *HR Manager, Norwich BioScience Institutes*	Steve has joined the NBI Partnership as HR Manager in March 2016 and is aligned to TGAC and other teams within the partnership. Steve is a Chartered Member of the Institute of Personnel and Development and a Chartered Member of the Institute of Management and has over 30 years' Human Resources experience within the public and private sectors – the NHS, Financial Services, the UEA and Private Healthcare companies. Steve works full time and his wife works part-time and has one daughter and one granddaughter.

Account of the Self-Assessment process

Provide details of the self-assessment team meetings, including any consultation with staff or individuals outside of the institution, and how these have fed into the submission.

SAT meetings began in September 2015 and provided an opportunity to gather evidence of policies and practices in place in different teams within the Institute. In January 2016, working groups were formed (extending invitations beyond the SAT membership) to address specific aspects of the application: managing career breaks and flexible working, training and public outreach, workload and promotion, doctoral training, scientifically qualified managers and work culture. In addition to these working groups, consultations were held with our research leaders, female postdoctoral researchers and staff scientists, as well as with our PhD students to discuss areas of priority for improvement. In total, over 41% of our workforce (26F/20M) has directly provided input to shape the initiatives proposed in our Action Plan.

Furthermore, our work on Athena SWAN and background information on gender equality was presented to the entire Institute at our all-staff meeting (TGAC-all) in February 2016. These meetings are very well attended, with a participation of over 82% at our last event. This work will be presented externally via our website, with assistance from our communications team (AP 3.4)

With the recent creation of TGAC, leading to high levels of change and growth, the Institute has decided to deliver the Civil Service People Survey on an annual basis (as opposed to the biennial basis for more established institutes), providing us with 3 years of data on most aspects of the workplace. Most of our staff engage in this exercise, with completion rates reaching 80% in 2015. However, completion has been lower in the past year in our Research Division, which has not allowed for a gender breakdown of data. As such, we will aim to exceed a response rate of 70% in all groups in 2016 by communicating the importance of this data to our work on Athena SWAN, and by providing regular updates on completion rates (AP 2.2). In order to avoid "survey fatigue", we will also seek to include specific questions relevant to our work on Athena SWAN as part of the Civil Service People Survey process in 2016 (either by entering them in the survey, or by sending a link to additional questions if necessary, AP 2.3), providing an annual opportunity for all staff to share views related to their working environment via an anonymous survey. Data for our postgraduate students will continue to be acquired through the Postgraduate Research Experience Survey (PRES), however as our student numbers are low, this currently only allows us to access data at the NBI (Norwich Biosciences Institutes) level.

Plans for the future of the self-assessment team, such as how often the team will continue to meet, any reporting mechanisms and in particular how the self-assessment team intends to monitor implementation of the action plan.

The composition of the SAT will be maintained to monitor progress on the Athena SWAN Action Plan on a quarterly basis (AP 1.1). However, the remit of the committee will be extended to encompass broader considerations of diversity in the workplace. As such, this structure will be renamed the Equality and Diversity Committee. The chair of the EDC will provide informal updates to the Senior Management Team (SMT) on a quarterly basis, and formal reporting against Action Plan objectives to the SMT and Board of Trustees will occur on an annual basis (AP 1.2, AP 1.3).

(*680 words*)

SECTION 3

The Genome Analysis Centre

TGAC: History, Geography and Mission

The Genome Analysis Centre (TGAC) was founded in 2009 with strategic funding from the Biotechnology and Biological Sciences Research Council (BBSRC). In response to the rapidly evolving field of genomics following the development of next-generation sequencing methods and the UK need to access these technologies, TGAC was created to "advance bioscience by enabling and developing computational and genomics data-driven approaches in biology". The Institute has since expanded considerably, growing from a team of 12 members in 2009 (6F, 6M) to over 117 members of staff (52F, 65M) and 10 postgraduate students (6F, 5M) in November 2015, the time point used for our data reporting.

As a core component of its mandate, the Institute contributes to building the UK capacity in genomics through:

- Fundamental, Applied and Enabling Research programmes, advancing both the study of living systems and computational sciences.
- The National Capability in Genomics (NCG), providing external access to high-throughput sequencing, high-performance computing and data analysis resources for life sciences.
- A fully owned subsidiary, Genome Enterprise Ltd (GEL) via which TGAC works with commercial providers and offers genomic and bioinformatics services on a trading basis. The institute also receives specific funding to enable knowledge exchange programmes to ensure that technological advancements contribute to innovation and economic growth.
- A dedicated training and public engagement team developing programmes and activities for both scientists and the general public.

TGAC is located on the Norwich Research Park (NRP), allowing for close collaborations with a range of research institutions including the University of East Anglia (UEA), the John Innes Centre (JIC), the Sainsbury Laboratory (TSL), the Institute of Food Research (IFR) and the Norfolk and Norwich University Hospital (NNUH). Through the Norwich BioScience Institutes (NBI) Partnership, TGAC shares resources related to graduate training, human resources, finance, estates, contracts and computing. The NBI equality and diversity committee offers an opportunity to share best practices amongst institutions, including developments resulting from our work on Athena SWAN.

Figure 1: Picture of the Norwich Research Park

Structure and Governance

The governance structure of the Institute is presented in figure 2. TGAC is guided by a Board of Trustees, currently composed of 7 non-executive Trustee Directors (2F, 5M) with diverse backgrounds including scientific research, commerce, finance and law.

The Executive team (2F, 1M) is composed of a Director (appointed in April 2016), a Director of Science, and a Director of Operations. The Executive team has always been gender balanced from the Institute's inception; in the current executive team both the Directors (Science and Operations) are women. The Director of Science leads the Research Division (63 staff in 2015, 19F, 44M) and their research teams. The research carried out at the Institute falls under 3 interdisciplinary programmes: Digital Biology, Organisms and Ecosystems and Engineering Biology. The Director of Operations oversees the management of the Institute's administration, the Platforms and Pipelines (P&P) group responsible for delivery of the National Capability in Genomics, Scientific Computing, Scientific Training, Education and Learning, and Communications and Business development (54 staff in 2015, 33F, 21M).

Institute Values

TGAC has developed to be one of the leading UK research and innovation centres specialised in genomics applied to plant, animal and microbial science. The strategy has relied on the implementation of novel applications, establishing collaborative work and the development of skills to advance knowledge and promote the growth of the UK bioeconomy. TGAC's development has been founded on a culture defined by the following values:

- Openness: TGAC promotes the dissemination of data and distribution of software code by following data-sharing policies that are embedded in all the research programmes.

- Technical excellence: As a national capability, TGAC is committed to test, evaluate and offer access to cutting-edge technologies, staff training and protocol development.

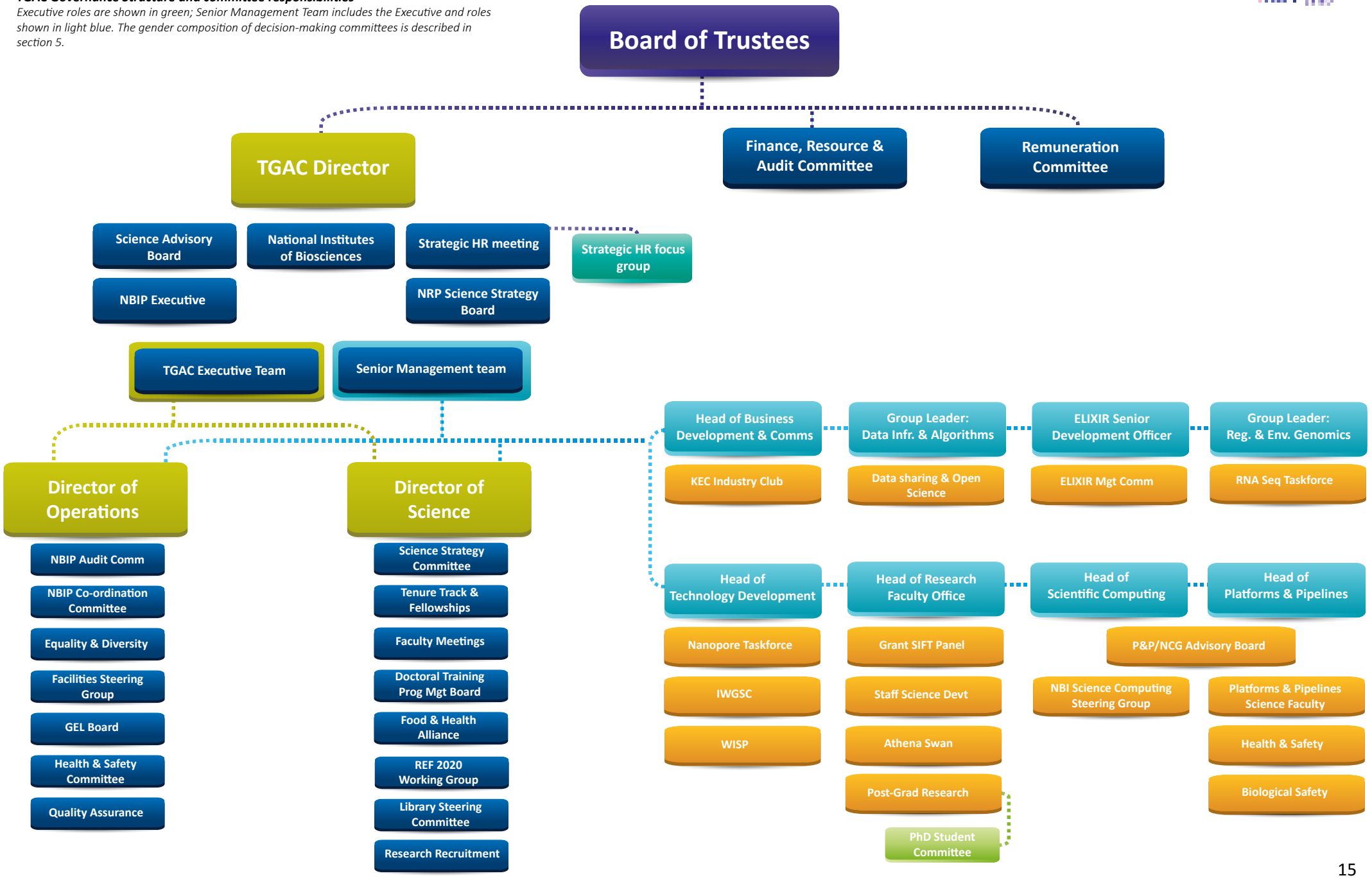
- Skilled personnel: TGAC pursues excellence at all levels of operation, reflected in its Strategic Human Resources programme.

- Innovation: Access to novel technologies and state-of-the-art hardware platforms provides the foundation for instigating novel solutions and innovative science.

Figure 2

TGAC Governance Structure and committee responsibilities

Executive roles are shown in green; Senior Management Team includes the Executive and roles shown in light blue. The gender composition of decision-making committees is described in section 5.



Women in Genomics

The field of genomics relies on highly mathematical and computational approaches, two subject areas with low female representation at all academics levels[1] (HESA 2013/14). The high level of interdisciplinarity of this field makes benchmarking difficult against other institutions; we have worked in collaboration with the Wellcome Trust Sanger Institute, as well as other BBSRC strategically funded research institutes to discuss potential metrics and best practices. We will maintain this involvement, particularly through the Athena SWAN London/East Anglia network, for which TGAC has volunteered to host the next meeting in spring 2016 (AP 6.2).

The Institute was fortunate in providing a female role model in genomics at its highest rank, with Professor Jane Rogers as founding director. Prof Rogers has overseen the UK contribution to the Human Genome Project, and remains the most prolific British female scientist by number of citations. We plan to celebrate this legacy as part of our Athena SWAN Action Plan (AP 6.6).

The Institute is in the process of developing an application for renewal of core funding in 2017. Our work on Athena SWAN has provided an opportunity for a deep reflection on many aspects of our workplace to ensure that equality of opportunity is at the core of our renewed strategy. This will be achieved through the demonstration of HR excellence in our recruitment, appraisal and promotion practices (AP Sections 3 and 4), as well as through our contribution to correcting the underrepresentation of women in the field of genomics through our training capacity (AP Section 7).

(983 words)

[1] Although women are highly represented in students in Biological Sciences (59% Undergraduate/ 64% postgraduate), their participation is lower in mathematics (39% Undergraduate/ 34% postgraduate) and very low in computational sciences (15% Undergraduate/ 25% postgraduate) source: https://www.hesa.ac.uk/stats

SECTION 4

Data analysis

Provide data for the past three years (where possible with clearly labelled graphical illustrations) on the following with commentary on their significance and how they have affected action planning.

- Student Data
  - Postgraduate Students
  - Visiting Students

- Staff Data
  - Female:Male ratio of academic staff
  - Turnover by grade and gender

Postgraduate male and female numbers on research degrees – full and part-time – comment on the female:male ratio compared with the national picture for the discipline. Describe any initiatives taken to address any imbalance and the effect to date. Comment upon any plans for the future.

Postgraduate students at TGAC are registered at the University of East Anglia, and mainly study at the PhD level. The Institute has only hosted a small number of Masters students in Computational Biology in the past years, making any gender analysis difficult.

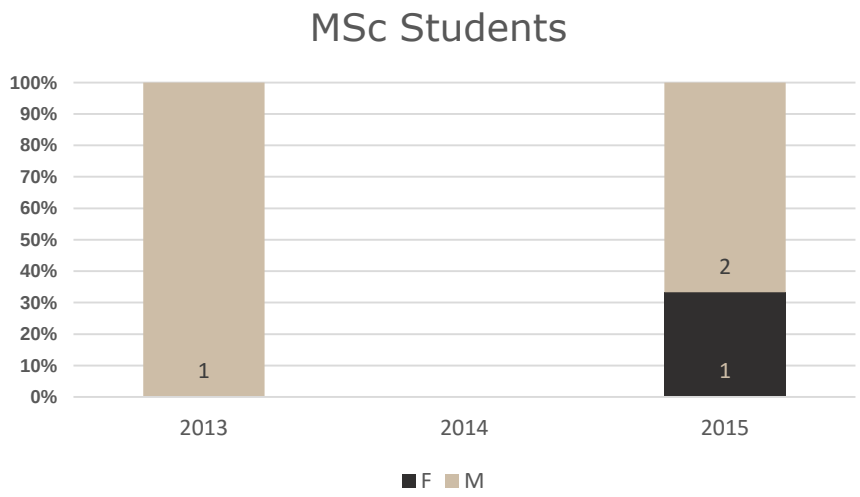


Figure 3
Gender representation of Masters Students at TGAC (2013-2015)

PhD students

Most PhD students at the Institute are funded through the BBSRC Norwich Research Park Doctoral Training Programme (DTP). Between 2012 and 2015, the number of PhD students has increased from 1 to 10. Although cohort numbers are very small and should be treated with caution, the student body at the Institute has reached gender parity in 2014, and has maintained a 50% female representation following the 2015 intake. Although women are well represented at the postgraduate level in Biological Sciences (64%, HESA 2013-14), they remain poorly represented in Computational Sciences (25%), and Mathematics (34%), two subjects required at an advanced level for most PhD research projects at TGAC. The closest institution in terms of research would the Wellcome Trust Sanger Institute, which also had a balanced student contingent in 2013 (50.6% female).

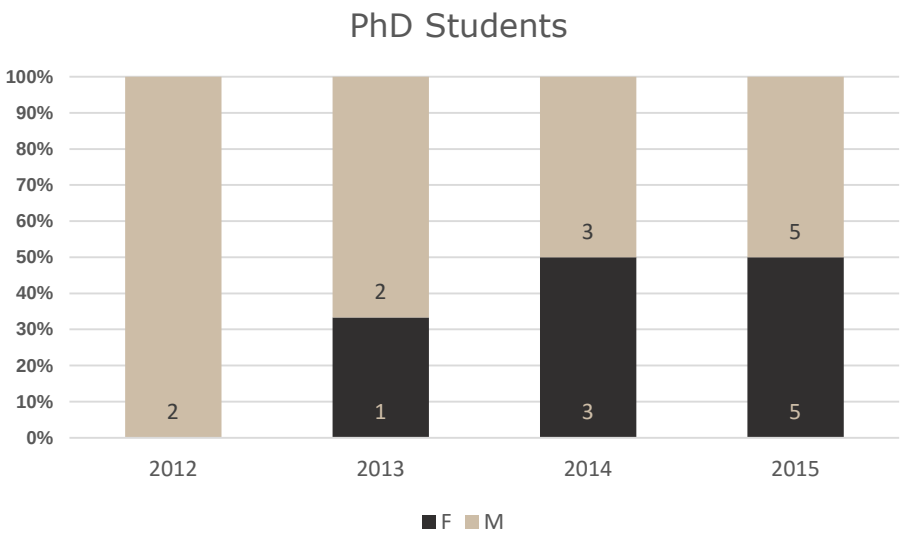


Figure 4
Gender representation of PhD Students at TGAC
Our student population has reached gender parity in 2014 and has maintained this ratio through growth in 2015.

Ratio of applications to offers and acceptances by gender for postgraduate research degrees

Comment on the differences between male and female application and success rates and describe any initiatives taken to address any imbalance and their effect to date. Comment upon any plans for the future.

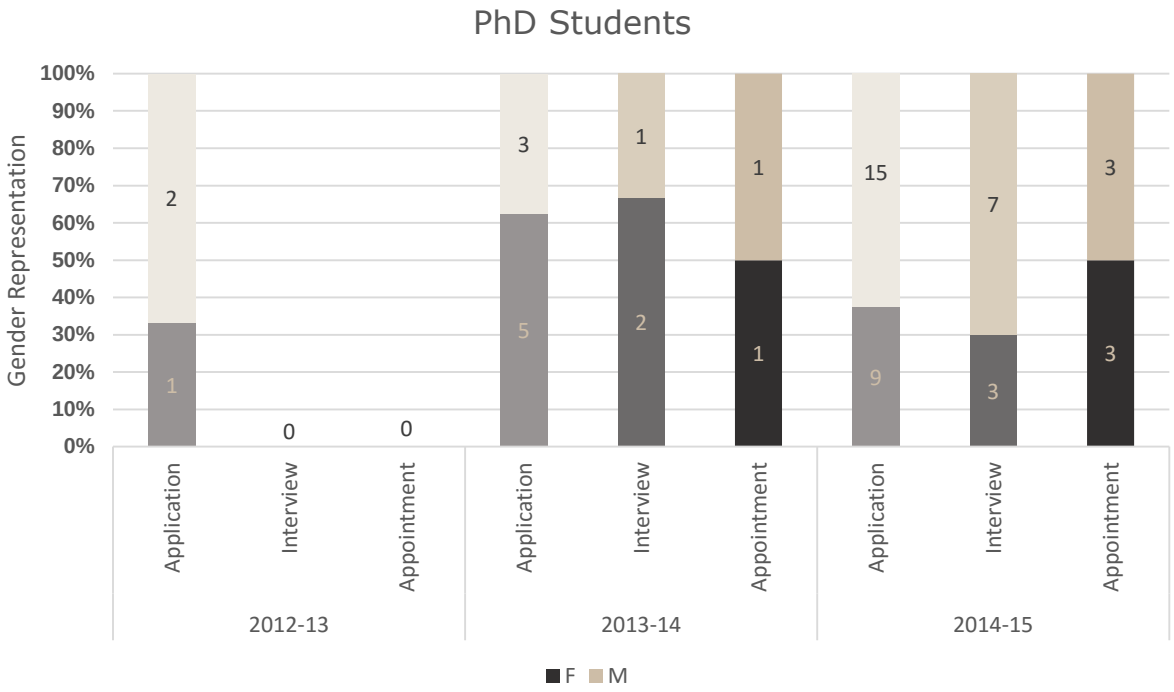


Figure 5
Gender representation of PhD Students at TGAC: Application, Interview and Appointment Stage
Small numbers and highly diverse positions (requiring a background in biological sciences or computer sciences) are likely responsible for the different proportions of applicants between years. Two current TGAC students (female, recruited in 2013 and 2014) are not represented in these numbers as they were directly recruited through the UEA selection process.

No consistent gender pattern emerges through the recruitment of PhD students at the Institute, for which annual numbers remain low and are subjected to a high degree of variation. Partial numbers for our 2016 intake indicate that a higher proportion of female students may be joining the institute than previous years.

As part of the redesign of the TGAC website, much effort will be dedicated to ensuring that sections pertaining to students project a female friendly research environment with peer role models, through videos and case studies (AP 3.4).

Research degree submission rates and time taken to complete research degree by gender

Comment on any differences in submission rates between males and females and describe what actions are being taken to address any imbalance.

Comment on any differences in research degree completion time between males and females and whether any breaks were needed e.g. maternity/paternity leave, career break.

Due to the recent establishment of the institute, only one student (male) has reached the end of his degree, completing the programme on time. Although no student has needed to take a break in their studies so far, we will make the information pertaining to leave provisions clearer online, and as part of the information students receive as part of their induction (AP 5.2).

Visiting students (more than 6 months)

Male and female numbers – full and part-time – comment on the female:male ratio compared with the national picture for the discipline or topic area. Describe any initiatives taken to address any imbalance and the impact to date. Comment upon any plans for the future.

Ratio of applications to offers and acceptances by gender for visiting students more than 6 months, and for postgraduate research degrees – comment on the differences between male and female application and success rates and describe any initiatives taken to address any imbalance and their effect to date. Comment upon any plans for the future.

Year in Industry

TGAC regularly hosts Year in Industry placements for undergraduate students, which forms the majority of visiting students at the Institute. This provides a recruitment pathway for further study, as evidenced from one of our current PhD students (female) having returned to TGAC following such a placement. Although the process originally occurred on an *ad hoc* basis (through spontaneous applications) we have formalised the process in 2013, ensuring that positions are more widely advertised. This has considerably increased the applicant pool, in which women remained well represented.

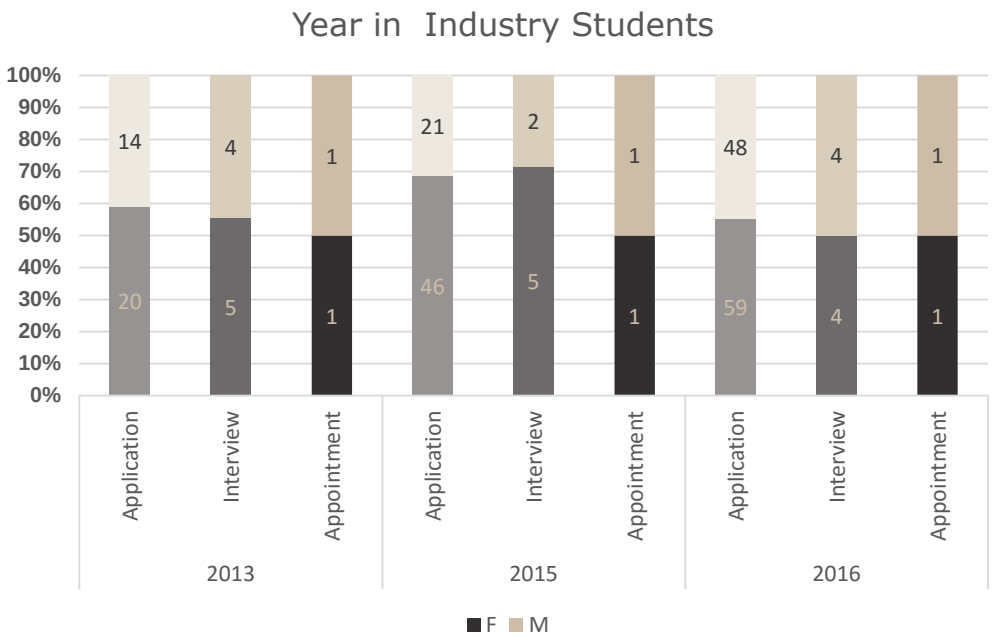


Figure 6
Gender representation of year in Industry students at the application, interview and appointment stages
Note: The programme did not take place in 2014/2015

Although limited opportunities for visiting students are available for periods over 6 months, we will provide comprehensive information about all student visiting programmes (summer schools, year in industry, Professional Internship for PhD Students (PIPS), exchanged through our DEANN partnership) to our researchers and monitor applications and uptake by gender to obtain a clearer institutional perspective (AP 7.2).

Staff data

Female:male ratio of all academic staff (including teaching academics) and research staff – where suitable include post-doc, tenure track or fixed-term scientists and tenured scientists and different grades. Comment on any differences in numbers between males and females, benchmarked against national averages and say what action is being taken to address any underrepresentation at particular grades/levels.

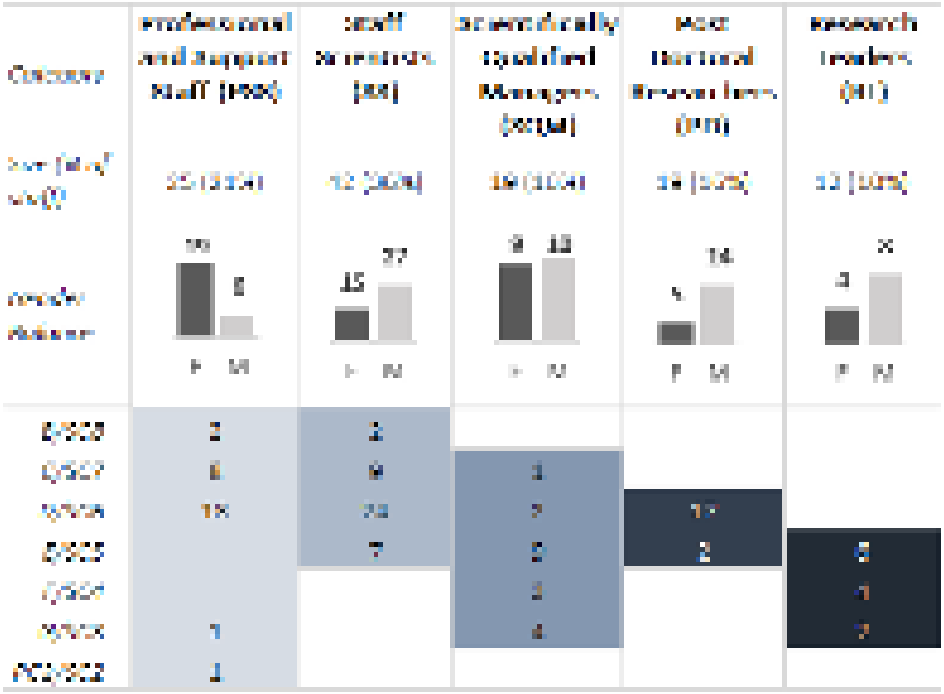
This exercise began with a careful consideration of different roles and career paths within the Institute. With our relatively small workforce (117 employees, 52F, 65M), we have attempted to define groups providing sufficiently large numbers for analysis, while providing a representative definition of different categories. We have considered all roles within this analysis, in a holistic effort to understand the working environment, and the transitions between different categories. We have found that scientifically qualified individuals occupy positions across all of these defined groups, which is essential to understanding and supporting the varied career paths available to our staff and graduating students. We will update our job categories in our HR database to facilitate future monitoring (AP 2.1).

Table 2: Comparison between levels in Higher Education Institutions (UEA) and Research Institutes

HEI Grade (UEA)	University Staff Category	TGAC/ BBSRC Grade	TGAC Staff Category	Athena SWAN Categories
Grade 4	Technical Staff	*B/SC8*	Research Assistant/ Support Specialist	Professional and Support Staff (PSS)
Grade 6	Research Assistant	*C/SC7*	Research Assistant/ Support Specialist	
Grade 7	Senior RA/ Lecturer A	*D/SC6*	Senior Research Assistant/ Senior Support Specialist/ Postdoctoral Researcher	Staff Scientists (SS)
Grade 8	Research Fellow/ Lecturer B	*E/SC5*	Project or Programme Manager/ Senior Postdoctoral Researcher/ Research Fellow	Scientifically Qualified Managers (SQM)
Grade 9	Senior Research Fellow/ Senior Lecturer/ Reader	*F/SC4*	Group Leader/Senior Programme Manager	Postdoctoral Researchers (PD)
Prof	Professor	*G/SC3*	Head of Department or Scientific Programme	Research Leaders (RL)
Prof	Professor	*PC2/SC2*	Deputy Director/ Director	

Table 3: Composition of TGAC workforce (2015) by job category and grade

Seniority increases from top to bottom



Overall, this analysis has identified the largest gender divide at the senior postdoctoral/early research leader stage at TGAC. This forms a priority group in our Action Plan, as it constitutes the pool of researchers most likely to progress in an academic/research career in genomics, a relatively recent scientific field. The E/SC5 grade is dominated by senior bioinformaticians at the Institute, a research area with very low female participation, as evidenced by a 15% female application rate for E/SC5 research positions between 2012 and 2015. In addition to implementing recruitment practices to increase the number of female applicants (AP Section 3), our Action Plan will address the root cause of this problem by developing opportunities for women to train in bioinformatics at the undergraduate and postgraduate levels (AP Section 7).

Research Leaders (RL)

Based on their tasks and level of responsibility at TGAC, researchers in this group include fellows, scientific project leaders, group leaders, and heads of scientific programmes. Research Leaders formed 10% of our workforce in 2015. Common responsibilities in this category include leading research teams, the supervision of postgraduate research students and substantial leadership and management of grants in the Research Division.

The representation of women as research leaders is very low at the early career stage (E/SC5 grade, 17% female), and improves through levels of seniority. However, the overall proportion of women in this category is constantly increasing (13% in 2013, 18% in 2014, 33% in 2015, figure 7). The proportion of women at this level appears to be comparable to other, larger research institutions, such as the John Innes Centre (25%F group leaders in 2012-13), the Babraham Institute (29%F in 2013-14), and the Wellcome Trust Sanger Institute (under 20% in 2013). As indicated above, an important contributor to the recruitment and/or promotion of more female research leaders is the gender diversity from the applicant pool at the postdoctoral level, which forms a priority group to be addressed in our Action Plan.

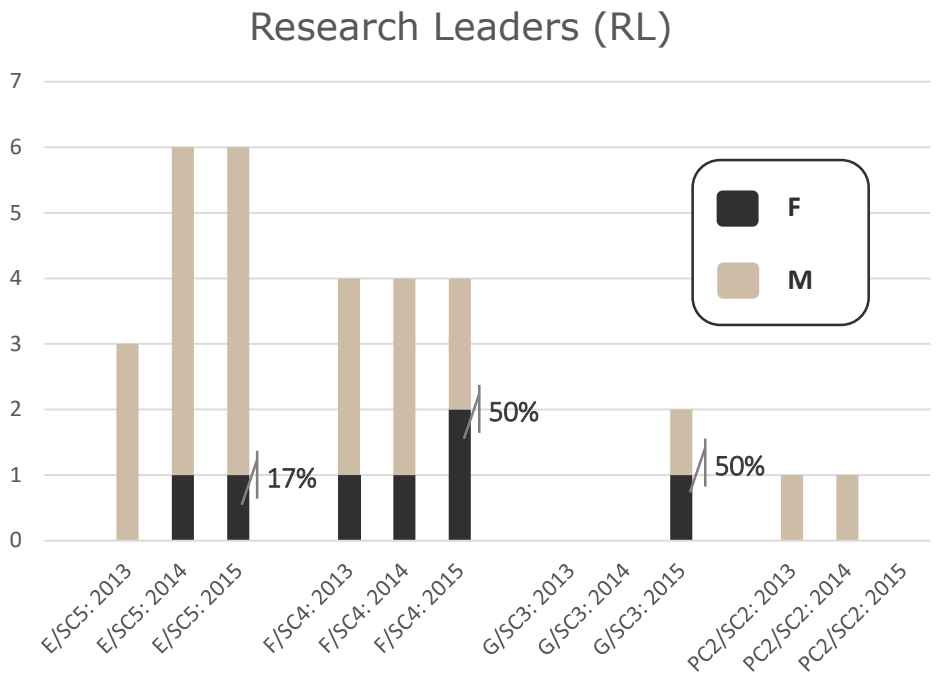


Figure 7
Gender composition of the Research Leader Category 2013-2015
(Seniority increases from left to right)
Overall female representation in this category has increased from 13% in 2013 to 33% in 2015

Postdoctoral Scientists (PD)

Our postdoctoral contingent has grown considerably between 2013 (5 individuals, 1F, 4M) and 2015 (19 individuals, 5F, 14M), with the development of the Research Division. Through this time period, the proportion of women has also increased, although much progress will be required to reach gender parity. Many postdoctoral researchers at the Institute have a computer sciences background, a research field with 25% of female representation at the postgraduate level (HESA 2013/14).

We are encouraged by the gender balance of our PhD student population, which can be expected to improve diversity at the postdoctoral level at the Institute in the future. To address this gender imbalance, we will review the careers section of our website to ensure we project a positive image of women in computing (AP 3.4), promote the scientific achievements of our female scientists more actively, emphasise how the Institute supports a work-life balance and flexible working (AP 8.1), and proactively advertise opportunities to women (AP 3.2 and AP 3.3).

We also believe TGAC has a direct role to play in increasing the pool of qualified women in bioinformatics through its training capacity. Our work on Athena SWAN has led to the creation of a working group for public outreach and training in computing, with the core objective of increasing the diversity of trainees with advanced computing skills (more information under Outreach Activities, and Section 7 of Action Plan). Our communication strategy will also include blog posts featuring our female researchers leading in the field, to break down myths surrounding bioinformatics, and projecting a gender-neutral and family-friendly image of this research field (AP 7.3).

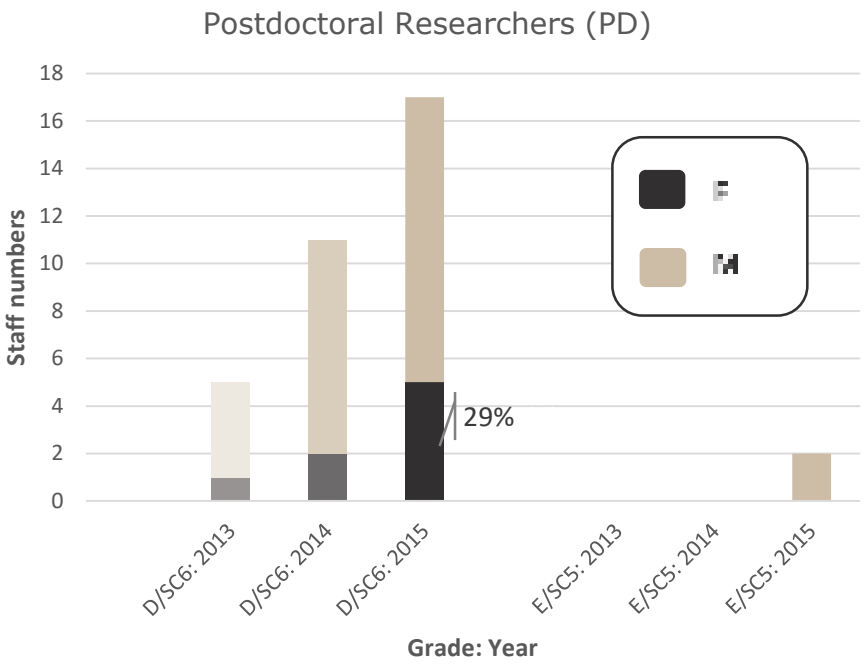


Figure 8
Gender composition of Postdoctoral Researcher Category 2013-2015
(Seniority increases from left to right)
Overall female representation in this category has increased from 20% in 2013 to 26% in 2015.

Staff Scientists (SS):

Staff scientists contribute their advanced technical and research skills towards larger projects in their research group or in delivering specialised services to clients of the Institute (in our Platforms and Pipelines team). Staff in this category may join the institute from levels B/SC8 as research assistants and progress to higher levels, although this was found to be a category with higher levels of turnover for women (Table 4). Several individuals at this level have chosen to pursue studies at the PhD level either in another institution (3F), or within the Institute (4F, 3M), which we consider a positive trend in terms of career progression for many women at TGAC. Routes to promotion in this career path may lead to a higher grade, but also frequently to a transition to managerial roles (represented in the SQM category).

A large gender difference is seen between grades SC7 and SC6, which mostly reflects roles in different fields at the Institute. Women are overrepresented in research assistant positions, mainly at the SC8/SC7 level. However, positions at the SC6/SC5 level are largely dominated by roles in software programming and bioinformatics (in which the Institute has increased its recruitment in recent years), which suffers from poor female representation. As described in the above section on postdoctoral researchers, our action plan initiatives seeking to increase the recruitment and training of women in bioinformatics (AP Section 7), should also contribute towards improving the gender balance of our staff scientists at higher grades. Ensuring that our research staff fully understand the processes leading to promotion, and providing training on unconscious bias to our line managers will also support the career progression of women at the Institute (AP 4.1 and AP 4.7).

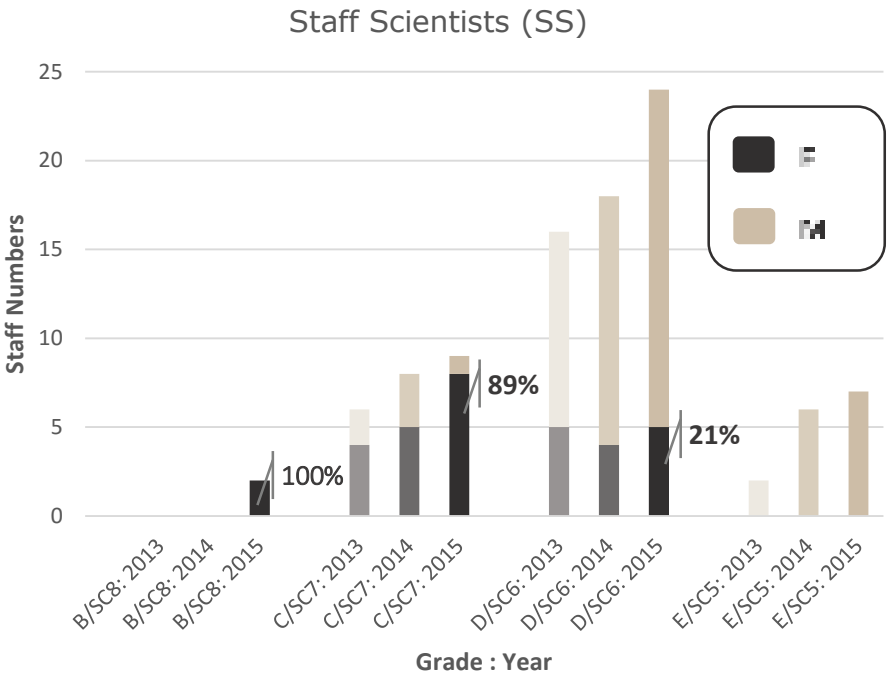


Figure 9
Gender composition of Staff Scientist Category 2013-2015
Women are overrepresented at lower grades (mainly research assistant positions) and underrepresented at higher levels (mainly bioinformatics)

Scientifically Qualified Managers (SQM):

The roles of Scientifically Qualified Managers were defined as not including research activities as the core component of their position (although many contribute to grants and publications). Most SQMs tend to hold project management responsibilities or lead teams. Women are well represented in the SQM category at the Institute (47%), and provide leadership role models for our PhD students, reflecting the diversity of roles made accessible by research training.

Consultations with this group have identified the dual need to grow a skillset allowing these individuals to develop in their managerial role, while remaining aware of scientific developments in a rapidly evolving field. The support for a management community of practice (4.12) will allow for an exchange of best practices for learning and development, and is expected to support the growth of professional networks for staff in this category.

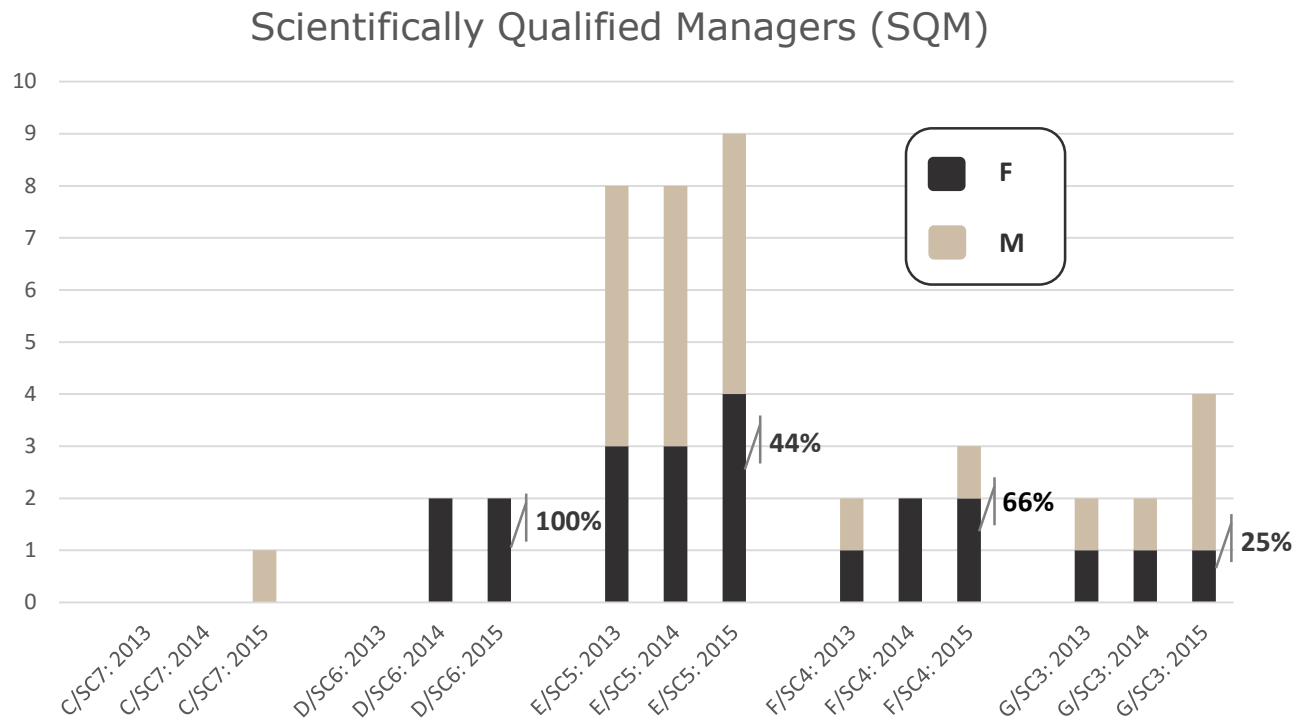


Figure 10
Gender composition of Scientifically Qualified Managers 2013-2015
Women are generally well represented in most grades of this category, which appears to offer an attractive career path for female scientists.

Professional and Support Staff (PSS)

Approximately 21% of our staff hold positions which do not entail conducting scientific research (defined as designing and performing experiments, analysing data and publishing results), highlighting the importance of this career path at the Institute. This group encompasses a range of functions at TGAC, including administrative and IT support, business development and communications, and training and public outreach. We have found that several individuals in this category have a scientific background, contributing a broad skillset to the Institute. This is the only category in which women are represented in a higher proportion than men (76%).

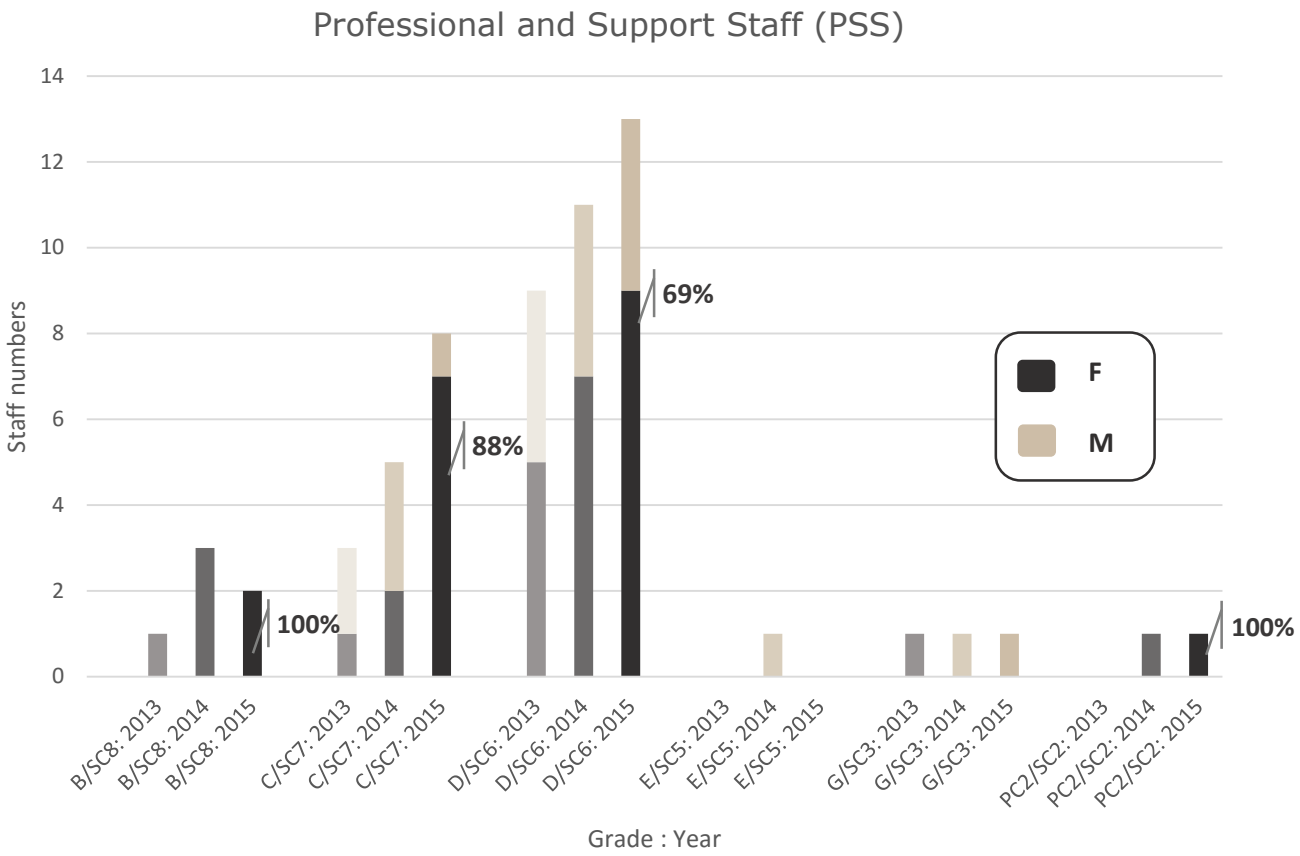


Figure 11
Gender composition of Professional and support Staff (2013-2015)
The PSS category shows female representation in most grades, with more women than men in grades B/SC8 to D/SC6.

Turnover by grade and gender

Comment on any differences between men and women in turnover and say what is being done to address this. Where the number of staff leaving is small, comment on the reasons why particular individuals left.

We have analysed turnover statistics at the institute for the 3-year period of 2012 to 2015. This analysis was performed for all individuals involved in scientific research, but analysing trends from exit interviews for all members of staff is part of our Action Plan to identify a potential gender bias affecting decisions to leave the Institute (AP 2.4).

Table 4 shows the number of individuals that left the Institute, by gender and grade. This data shows that women leave the institute in higher proportion than men. However, this appears to occur disproportionately within the SC7 grade, mostly consisting of research assistant positions (a female-dominated role at the institute, figure 9).

Table 4: Members of staff in scientific roles (PD, SS, RL) leaving the institute (2012-2015), by gender and grade

	C/SC7	D/SC6	E/SC5	F/SC4	PC2/SC2	Total
F	5	3	3	1	1	**13**
M		2	2	1	1	**5**
Total	**5**	**5**	**5**	**2**	**1**	**18**

To further investigate this trend, we have compiled all known information about the professional destination of individuals leaving the institute. This has revealed that most members of staff have gained new skills allowing them to be recruited in positions at a higher level in other research institutions. Within the C/SC7 and D/SC6 group, the vast majority of women (7/8) obtained a promotion in a different institution (4/8) or chose to pursue training at the PhD level (3/8) at a different institution. At the highest ranks, one female left the Institute due to retirement (PC2/SC2), and another to lead a newly established genomics facility (F/SC4). We will continue to monitor the career paths of scientific support staff and trainees to ensure that the Institute provides an optimal training platform to increase the capacity of genomics in the UK, in alignment with our mission.

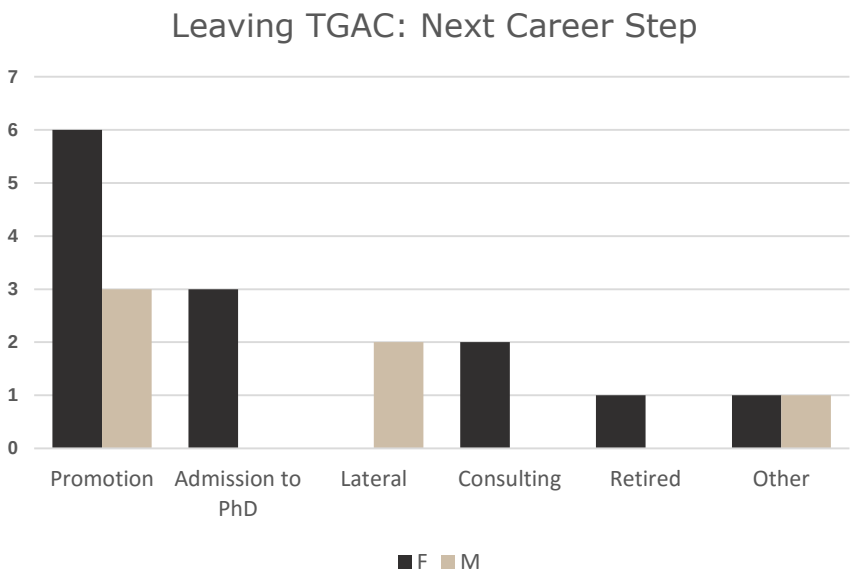


Figure 12:
Career progression of members of scientific staff leaving the institute (2012-2015)
Most women in research assistant roles successfully move to higher positions in other research institutions, or choose to pursue PhD training.

(2282 words)

SECTION 5

Supporting and advancing women's careers

- Key career transition points
- Career development
- Organisation and Culture
- Flexibility and managing career breaks

Key career transition points

Provide data for the past three years (where possible with clearly labelled graphical illustrations) on the following with commentary on their significance and how they have affected action planning.

- Job application and success rates
- Applications for promotion and success rates

For each of the areas below, explain what the key issues are in the institute, what steps have been taken to address any imbalances, what success/impact has been achieved so far and what additional steps may be needed.

- Recruitment of staff
- Support for staff at key career transition points

Job application and success rates by gender and grade

Comment on any differences in recruitment between men and women at any level and say what action is being taken to address this.

For the 3-year period of 2012 to 2015, we have considered the recruitment of all staff performing scientific research, either as scientific support staff, postdoctoral researchers of research leaders (SS, PD, RL). Data was available on the gender representation at the application, interview and appointment stages, but the consistent reporting of these figures in line with new job categories is part in our Action Plan (AP 2.1).

Although no clear trends are apparent in the gender progression through recruitment stages over time, the highest number of female applicants, interviewees and appointed candidates was observed in 2015, a positive trend (Fig. 13). Different patterns become apparent when considering the gender distribution across grades. Women apply in higher numbers (and proportion) to positions at the SC7 and SC8 grade, often for research assistant roles, and tend to be more successful than men at the interview and appointment stage. We observe a different pattern in grades SC6 to SC3, with low numbers of appointed female candidates (23% on average) reflecting the low number of female applicants (25%). As such, increasing the diversity of the applicant pool at these levels forms a core objective of our Action Plan. This will be achieved through the internal advertisement of recruitment opportunities (AP 3.3), much caution in developing gender neutral job descriptions (AP 3.1), advertisement strategies directed at women (AP 3.2), the redesign of our website (AP 3.4), and the presentation of case studies of female bioinformaticians in promoting this field as conducive to flexible working (AP 3.5).

Gender progression through recruitment stages, by year

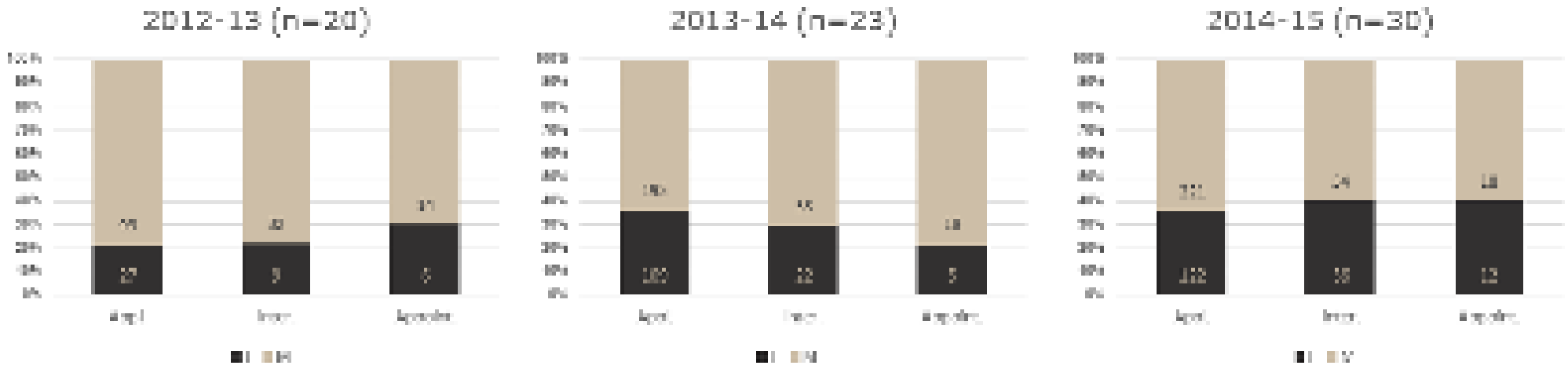


Figure 13: Yearly progression of gender representation at the application, interview and appointment stages for scientific roles (2012-2015).
Few consistent patterns are apparent through time, in part due to the low overall number of appointments. "n" stands for the number of vacancies per year.

Gender progression through recruitment stages, by grade

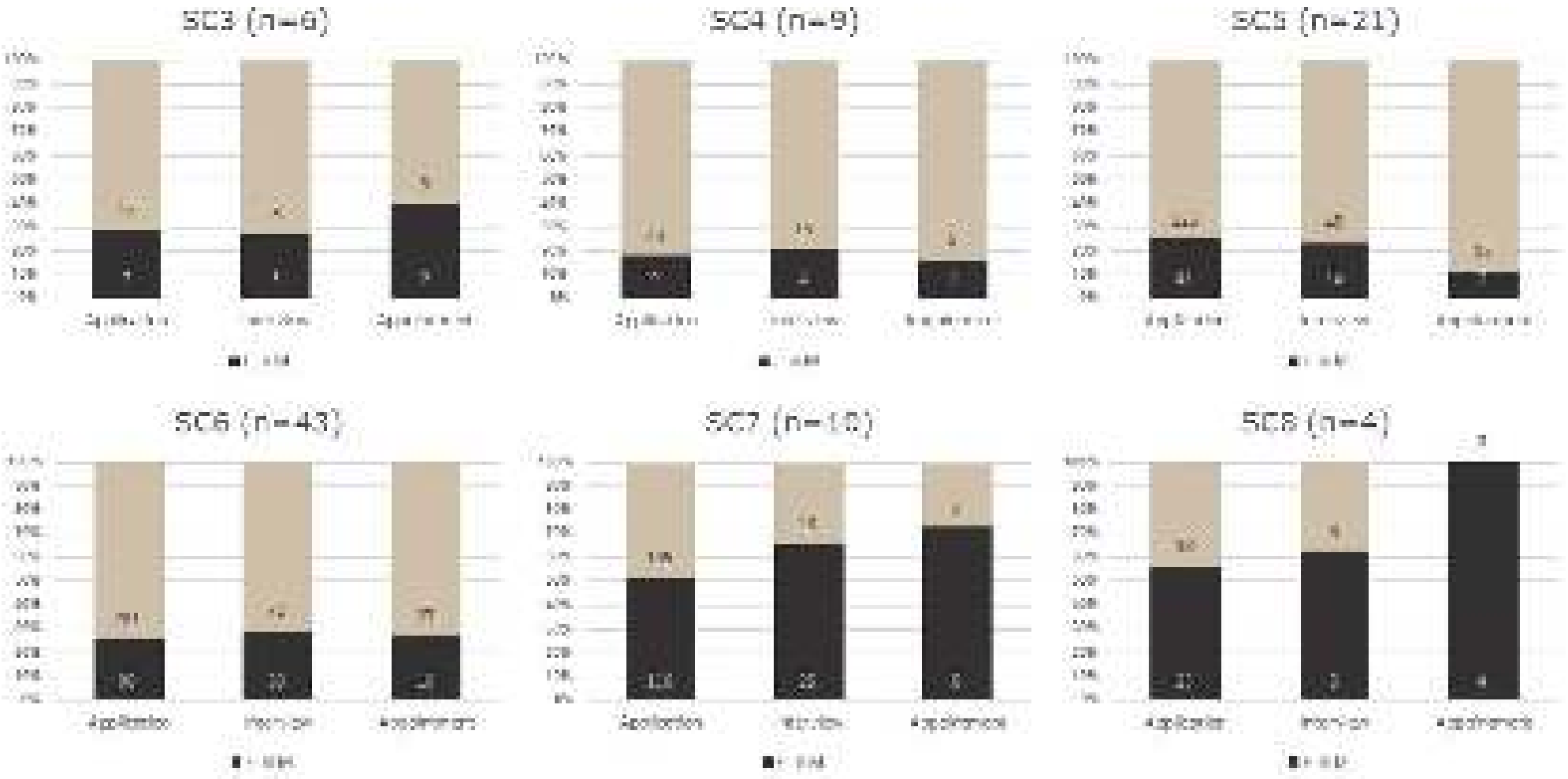


Figure 14: Gender representation at the application, interview and appointment stages of scientific roles (2012-2015), at different grades. *Seniority increases from SC8 to SC3; "n" stands for the number of vacancies per grade (note: not all vacancies were filled). More women apply and are appointed in positions at grades SC7 and SC8. Addressing the low female representation in our applicant pool at higher grades forms a core objective of our Action Plan.*

Applications for promotion and success rates by gender and grade

Comment on whether these differ for men and women and if they do explain what action may be taken. Where the number of women is small applicants may comment on specific examples of where women have been through the promotion process. Explain how potential candidates are identified.

For the 3-year period of 2012-2015, a total of 26 promotion events (leading to a grade increase) were recorded for all roles. Two different mechanisms led to a progression in grade: individual grading reviews (7/26, 2F, 5M), reflecting an increase in responsibility, or appointments through an open competition (19/26, 9F, 10M). Developing applications for a grading review requires a strong business case (as the level of responsibility and tasks performed by the individual will differ), and considerable support from line managers. Applications are reviewed by a trained, gender-balanced panel to ensure consistency. All submissions for grading reviews were accepted. Monitoring internal applications for open competitions will be part of our action plan (AP 4.9).

The gender difference in the frequency of promotion events broadly reflects the female representation in different roles at the Institute. Overall, women are represented in 42% of promotion events in the last 3 years, which is also the average female representation in our staff over the same period (42%). As described in our Staff Data (Section 4), promotions may lead to changes in job categories (from postdoctoral researchers (PD) to research leaders (RL), or scientifically qualified managers (SQM) for instance). As such, our data for scientific roles (excluding the Professional and Support Staff category PSS), shows a distribution of promotion events aligned with the female representation in scientific roles described in Section 4. As the recruitment of women has increased in our research categories in recent years, we expect to see an increase in promotion events for women in the future. To support this, we are planning to offer unconscious bias training, first to our managers, and subsequently to all staff (AP 4.1). Our consultations with researchers have also highlighted a need to inform staff of promotion mechanisms on a regular basis, including the possibility of obtaining a salary increase to reward exceptional performance, which will be done in collaboration with HR (AP 4.7).

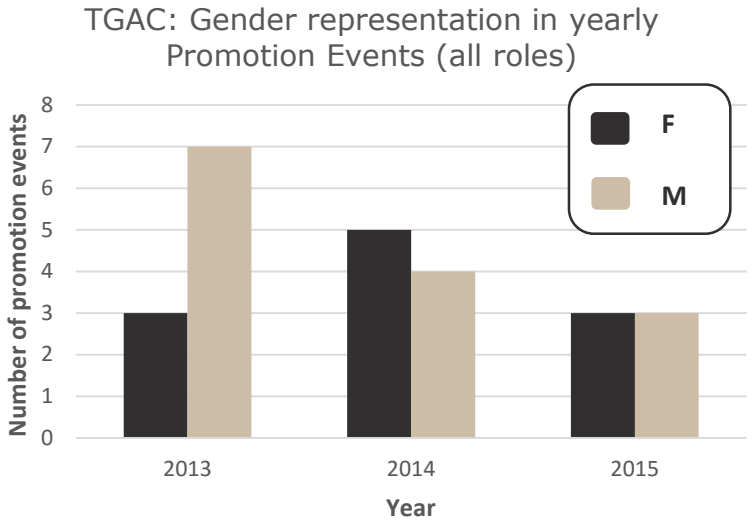


Figure 15:
Frequency of yearly promotion events (institute-wide) at TGAC, by gender
The representation of women in these promotion events over 3 years (42%) is aligned with the representation of women at the Institute over the same period (42%).

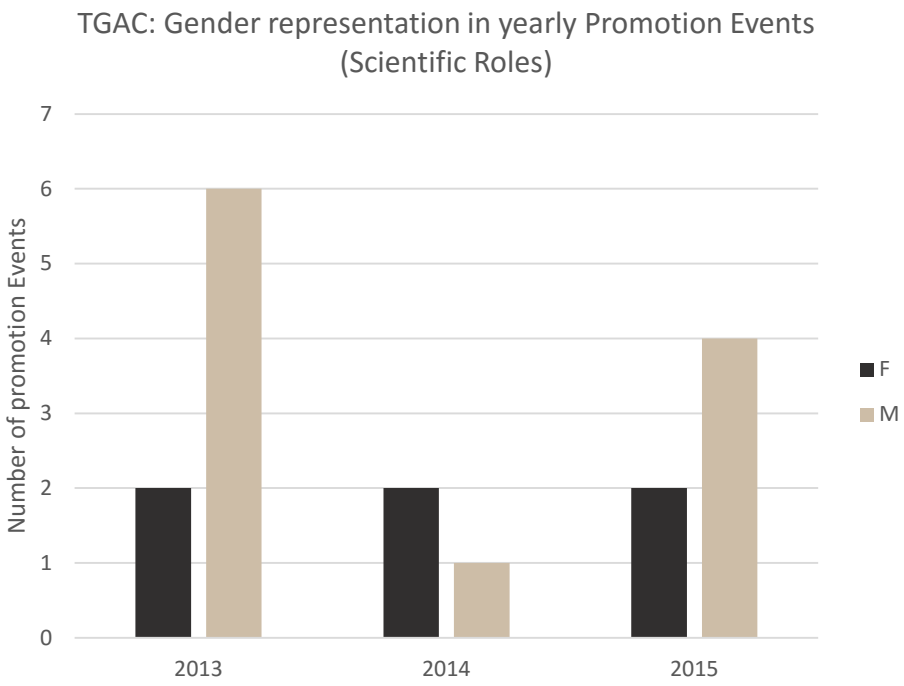


Figure 16: Frequency of yearly promotion events (scientific roles PD, RL, SS, SQM) at TGAC, by gender
The representation of women in these promotion events over 3 years (35%) is aligned with the representation of women in these categories over the same period (36%).

Recruitment of staff

Comment on how the institute's recruitment processes ensure that female candidates are attracted to apply, and how the institute ensures its short listing, selection processes and criteria comply with the institute's equal opportunities policies.

TGAC has committed to forming gender diverse panels as part of its recruitment policy. In 2015, the institute has reached a 100% success rate in providing gender diverse interview panels for all recruitment processes for scientific roles (n=14), with an overall female representation of 50% of panel members. To avoid adding a disproportionate administrative burden for women through this task, we will monitor the participation of staff members in this activity, and ensure that as many women have the appropriate training to carry out this task (AP 4.5).

As described in the above section (Job application and success rates by gender and grade) and in section 3 of our Action Plan, a range of initiatives will be implemented to increase the gender diversity of our applicant pool, which is currently low for scientific positions above the SC6 grade. In addition, section 7 of our Action Plan describes the range of initiatives designed to increase the number of qualified women in bioinformatics, which will also increase the diversity of the applicant pool, albeit in the longer term.

Having identified key areas of attrition of female staff in the institute, comment on any interventions, programmes and activities that support women at the crucial stages, such as personal development training, opportunities for networking, mentoring programmes and leadership training. Identify which have been found to work best at the different career stages.

Although our turnover data indicates that women leave the Institute in a higher proportion than men, particularly at the C/SC7 grade, we have found that the skills developed at TGAC have allowed most of them to move to roles at a higher level in other institutions. The evolution of these trends will be closely monitored through exit questionnaires, as stated in our Action Plan (AP 2.4). However, ensuring that we support the professional development and employability of our staff at all levels forms a core objective of our strategy, in part through appraisal discussions adapted to individual career aspirations, and guidelines adapted to distinct job categories (AP 4.3). Our Learning and Development team is currently holding consultations with TGAC staff to identity training needs specific to the Institute, which will inform the development opportunities available to our staff (AP 4.3).

With the lowest female representation (26%), we consider our postdoctoral staff to be particularly vulnerable to attrition, which can be exacerbated by the fixed-term nature of most postdoctoral appointments. Although a limited number of promotion opportunities are likely to be available within the Institute at the research leader level, we will work to ensure that our postdoctoral researchers are supported through the duration of their appointment at TGAC. The Executive has allocated funds to the Post-Doctoral voice (a community reaching across the NBI), which supports development opportunities considered important by this group of researchers (AP 4.10). We will also monitor the gender balance of postdoctoral researchers named on grant submissions at TGAC to prevent a potential bias in employment opportunities at the Institute (AP 2.5). As described in above sections, the Institute has also committed to supporting groups representing the needs of different roles within the institution, including the PhD student committee (AP 5.3), and a management community of practice (AP 4.12).

TGAC has a dedicated Research Faculty Office to support researchers in many aspects of their career, including the submission of fellowship and grant applications, a critical aspect of career progression in science. We will monitor the grant submission statistics to ensure that women are equally encouraged and supported in developing grant applications, as research councils, such as the BBSRC, have reported that women tend to submit fewer grant applications than expected by their representation in the research population (AP 4.8). We will also monitor the uptake of career development opportunities, such as presentation and attendance at conferences, and training, to identify potential gender differences (AP 2.5). Our junior researchers are also encouraged to contribute to our internal grant sifting process, which provides them with the opportunity to learn both how to review and write successful proposals through participating in discussions held during this process and by working alongside more senior researchers.

Our consultations with researchers have identified an opportunity to leverage the role of co-signatories at the Institute. All employees have a co-signatory, an individual more senior in role but outside of line management relationship, which provides an external perspective to the appraisal process. We will promote the potential mentoring role that these individuals can offer to researchers in considering their career development, beyond the current support offered by line managers (AP 4.6).

Career development

For each of the areas below, explain what the key issues are in the institute, what steps have been taken to address any imbalances, what success/impact has been achieved so far and what additional steps may be needed.

- Promotion and career development
- Induction and training
- Support for female PhD students

Promotion and career development

Comment on the appraisal and career development process, and promotion criteria and whether these take into consideration the broad responsibilities of the researcher such as teaching, research, administration, pastoral work, fund raising, mentoring and support and outreach work; is quality of work emphasised over quantity of work?

A formal appraisal process takes place once a year in collaboration with HR, and a considerable effort was made to ensure full compliance, (63% in 2013, 100% in 2014, 99% in 2015). However, our Civil Service People Survey results indicate that improvements on the feedback outcomes may be achieved (table 5). Our objective of increasing the response rate on this survey (AP 2.2), will allow us to analyse results by gender, and identify any differences in perception of the performance appraisal process, which will inform the support provided to our line managers (AP 4.2).

Table 5 : Metrics of performance appraisal, assessed by the Civil Service People Survey (2015) *(neutral responses are indicated when positive responses are below 75%)*

	% Positive responses Research Division *(n=34,58% response rate)*	% Positive responses Platforms and Pipelines *(n= 26, 100% response rate)*
In my job, it is clear what is expected of me	82%	85%
My performance is evaluated based on whether I get things done, rather than solely follow processes	79%	92%
I am able to access the right learning and development opportunities when I need to	88%	69% *(23% neutral)*
I receive regular feedback on my performance	74% *(9% neutral)*	50% *(27% neutral)*
The feedback I receive helps me improve my performance	71% *(26% neutral)*	58% *(23% neutral)*

The identification of a broad range of roles within the Institute has led us to recommend the development of guidelines to support discussions tailored to specific needs (AP 4.3). We are also working with our NBI Learning and Development team to build the coaching capacity at the Institute to facilitate career discussions reflecting the individual needs of our staff (AP 4.11).

The Research Faculty Office is currently implementing a tenure track process for the recruitment of research leaders at the Institute, creating a consistent and clear process to achieve promotion as a tenured researcher at TGAC. The Terms of Reference for the tenure track evaluation include a section on responsibilities beyond scientific research, including mentoring and public outreach. These Terms of Reference also include a provision to pause the "tenure clock" to accommodate periods of leave, for illness or caring responsibilities, for instance.

As part of our Action Plan, we will offer unconscious bias training first to our managers, and subsequently to all other staff (AP 4.1). This training will ensure that more consideration is given when identifying and reaching out to individuals to offer potentially career-enhancing opportunities, which could include training, contribution to grant applications or attendance to conferences, which will also be monitored (AP 2.5).

Induction and training

Describe the support provided to new staff at all levels, as well as details of any gender equality training. To what extent are good employment practices in the institution, such as opportunities for networking, the flexible working policy, and professional and personal development opportunities promoted to staff from the outset?

Since August 2015, new staff and students are introduced to the Institute on a weekly basis during the Wednesday seminars, which provide them with an opportunity to briefly introduce themselves and their prior work (the vast majority of new staff have used this opportunity). Refreshments are provided following the seminars, which allow for interactions beyond a given team. New recruits and visiting students are also greeted at monthly "TGAC-all" meetings by the Director to welcome all new members.

The mandatory training for all new employees include courses on discrimination, harassment and bullying, and gender equality. The induction training at TGAC is delivered by our business support team and provides individual support on health and safety, as well as an initiation to Edays, our management software for absences and flexible working. This tool allows staff to easily place a request to work from home, for instance. Our computing team also provides support to enable staff to work remotely. New members of staff also attend an induction session with HR, which explains TGAC's policies and processes and conditions of employment.

The induction process also includes a frequent discussion of work objectives with line managers. The Institute promotes the use of 2, 4 and 6-month objectives leading to the end of the 6-month probation period (9 months for specific roles). These discussions allow for a mutual understanding of the role, and provide a strong foundation for the employee in their new position. Our consultations have pointed that these regular discussions do not always take place in the expected timeline. We will monitor the compliance with this process (including potential gender differences) in our Action Plan (AP 4.2).

Describe the support (formal and informal) provided for female students to enable them to make the transition to a sustainable scientific career, particularly from postgraduate to researcher, such as mentoring, seminars and pastoral support and the right to request a female personal tutor. Comment on whether these activities are run by female staff and how this work is formally recognised by the institute.

As the Institute has reached a critical mass of students (10 in 2015), a PhD student committee was formed to provide social and professional development activities, meeting needs identified at TGAC. The PhD student committee has been allocated a budget to support initiatives benefiting learning and development (AP 5.3). In 2014, the Institute has appointed its first Postgraduate Research Director, responsible for the quality of training offered to our students and involved in delivering on objectives of the Action Plan. Our students are empowered to request a gender balanced advisory committee, and this is communicated to students during their induction week. We will provide guidelines to primary supervisors of PhD projects reminding the importance of gender balanced committees and the right of PhD students to request female representatives (AP 5.2).

The most recent Postgraduate Research Experience Survey (PRES 2015)[2] has highlighted a statistical difference showing that male students in the UK are more likely to have submitted a publication based on their PhD research (a difference not explained by discipline, year of study or English proficiency). We will be monitoring the research outputs of our own students to ensure that there are no gender differences leading to differential opportunities to pursue a research career (AP 5.1). Our supervisory committees will receive guidance to ensure that our students are equally aware, encouraged and supported to generate publications from their work.

The Postgraduate Research Experience Survey (2015) has also highlighted the importance of several opportunities for professional development during PhD studies. Communication opportunities, which include communicating research to a non-academic audience, presenting at academic conferences and taking part in an internship had the highest contributions to the perception of skill development. Our students participate in many such activities at TGAC (we have received 8/10 responses, 4F, 4M to a questionnaire to evaluate this), which we will monitor as part of our supervisory structure (AP 5.1):

Communicating research to a non-academic audience: our public outreach team provides many opportunities for students to communicate with the public through open days and scientific festivals, as well as participating in school activities. Most of our students (7/8, 4F, 3M) have already taken part in such activities. Two of our male students have participated in "PubhD" sessions in Norwich, during which students discuss their PhD research with members of the public interested in science. The coaching and support offered by our Public Engagement team has motivated a female student to participate in the second event, and four other female students have demonstrated interest in participating in further sessions.

Presenting at academic conferences: Although the majority of our PhD students are in their first or second year of study, many have had the opportunity to present at academic conferences (4/8, 2F, 2M), including delivering presentations at prestigious conferences overseas. Our students have also demonstrated remarkable leadership in organising the 2nd student symposium for the International Society for computational biology at TGAC. Most have attended an academic conference (7/8, 3F, 4M), and presented at local UEA or NRP seminars (6/8, 4F, 2M).

[2] Postgraduate Research Experience Survey, filled by 53,000 postgraduate students https://www.heacademy.ac.uk/sites/default/files/downloads/pres_report_2015.pdf

Taking part in internships: Our DTP students must complete a Professional Internship for PhD Students (PIPS), providing them with exposure to a working environment meeting their individual interests. Hosting PIPS students from other DTPs may provide an opportunity for more women to gain bioinformatics skills, and we will be advertising this opportunity with particular consideration to presenting a female-friendly research environment (AP 7.2).

As part of our consultation with PhD trainees, several female students were interested in developing training materials pertaining to bioinformatics for their peers on the NRP. We will provide logistical support and coaching to host such events, contributing to the leadership and skill development of our PhD students (AP 5.6). to support the professional network of our student population, we will also work with our Graduate Studies Office to link our current students with NRP alumni (AP 5.7). Finally, we will be working with our NRP partners to offer a panel event for "Women in Science", offering the opportunity to hear about the diverse career paths taken by female researchers on the Research Park (AP 5.5).

Organisation and culture

Provide data for the past three years (where possible with clearly labelled graphical illustrations) on the following with commentary on their significance and how they have affected action planning.

- Female:male ratio of academic and research staff on fixed-term and open-ended contracts

For each of the areas below, explain what the key issues are in the institute, what steps have been taken to address any imbalances, what success/impact has been achieved so far and what additional steps may be needed.

- Male and female representation on decision-making committees
- Workload model
- Timing of institute meetings and social gatherings
- Culture
- Outreach activities

Female:male ratio of academic and research staff on fixed-term contracts and open-ended (permanent) contracts

Comment on any differences between male and female staff representation on fixed-term contracts and say what is being done to address them.

More men than women are on a fixed-term contract at the Institute, a difference in-part explained by the higher proportion of men in postdoctoral roles (all of which are fixed-term). With the recent foundation of the Institute, many researchers are have not yet reached tenure, a proportion that is likely to increase as the Institute becomes more established. Men are more likely to hold an open-ended contract in the staff scientist category, in which we have identified the largest turner over for women in research assistant roles. As described in our section on Turnover, the majority of women in these positions have left due to a promotion, or to pursue postgraduate training, and this is reflected in the lower number of females holding an open-ended contract in this category.

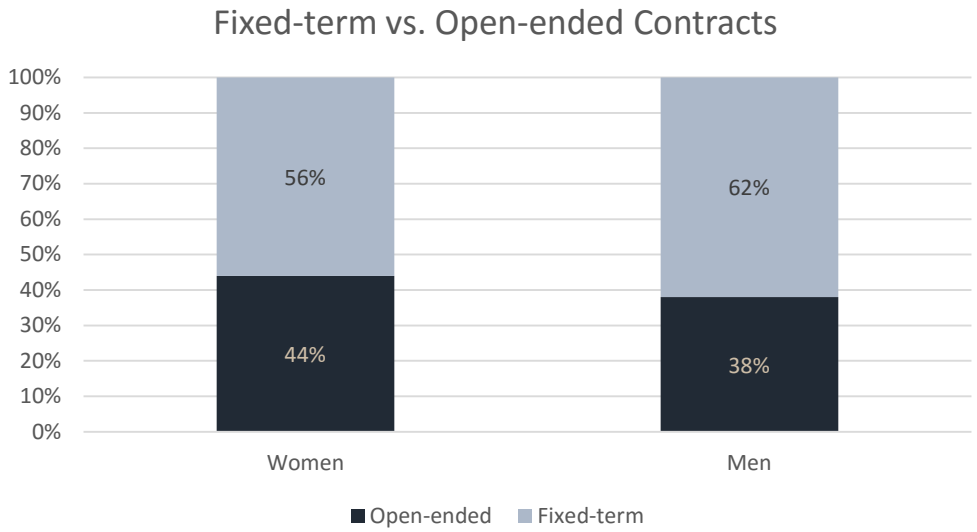


Figure 17:
Proportion of fixed-term and open-ended contracts at TGAC by gender
Overall women have a lower proportion of fixed-term contracts, in part due to their lower representation in our postdoctoral workforce.

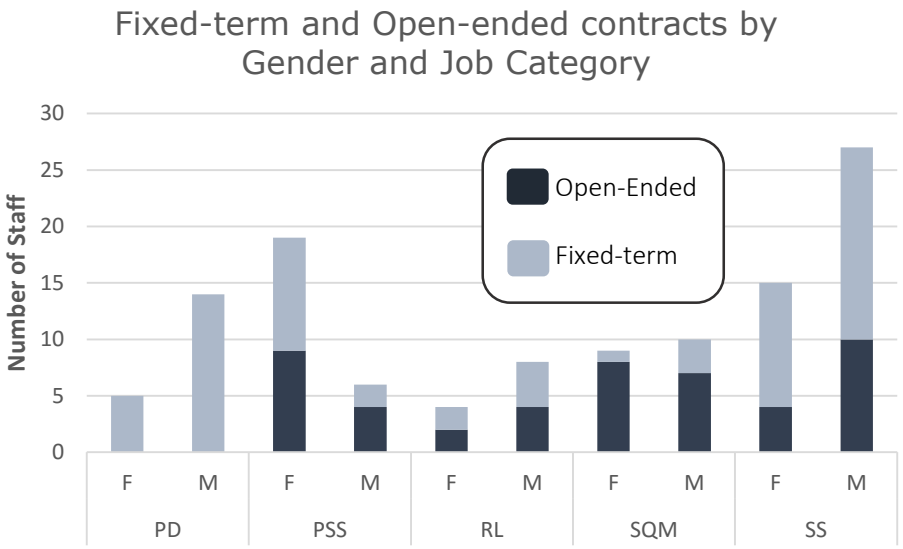


Figure 18:
Proportion of fixed-term and open-ended contracts at TGAC by gender and by job category
Women have a lower proportion of open-ended contracts in the staff scientist (SS) category, in which the largest rate of turnover was found, particularly for research assistant positions.

Male and female representation on decision-making committees –

Provide a breakdown by committee and explain any differences between male and female representation. Explain how potential members are identified. Comment on evidence of gender equality in the mechanism for selecting representatives. What evidence is there that women are encouraged to sit on a range of influential committees inside and outside the institute? How is the issue of 'committee overload' addressed where there are small numbers of female staff?

The gender composition of our decision-making committees is presented in Figure 19.

Our Executive committee, meeting once a week, is formed of the Director of the Institute (newly appointed in April 2016), the Director of Science, and the Director of Operations (2F, 1M). Both the Director of Science and Director of Operations are highly active members of the SAT, and have readily implemented initiatives originating from SAT discussions, such as integrating new language in job postings and correcting the gender balance of invited external speakers, for instance.

TGAC is guided by a Board of Trustees, currently composed of seven non-executive Trustee Directors (2F, 5M). As part of the Equality and Diversity Strategy of the BBSRC, strategically-funded institutes were encouraged to achieve a 50/50 gender balance on Governing Boards. Our Executive will work will the Board of Trustees to meet this requirement in 2017, by identifying highly suitable female candidates as board members reach the end of their term.

Although not a decision-making committee, our international Science Advisory Board (SAB) has a significant influence on our research activities. The Institute has worked to maximise the gender diversity of this committee and we have reached near parity in 2015 (4F, 5M), with members including some of the most eminent scientists in genomics and bioinformatics.

The Senior Management Team (SMT) is composed of 11 individuals, based on their role at the Institute. Current representatives from the Research Division include 3 men, due to the nature of their involvement in given scientific programmes. Prior to her maternity leave at the end of 2015, one of our most senior female researchers held one of these 3 positions. Consideration will be given to gender in selecting members for this committee on a rotating basis (every 2 years) for research leaders. Furthermore, when appropriate, deputies will be nominated to attend meetings in the absence of members with a strong consideration for gender, to increase the exposure of our female managers to this decision-making process (AP 1.4).

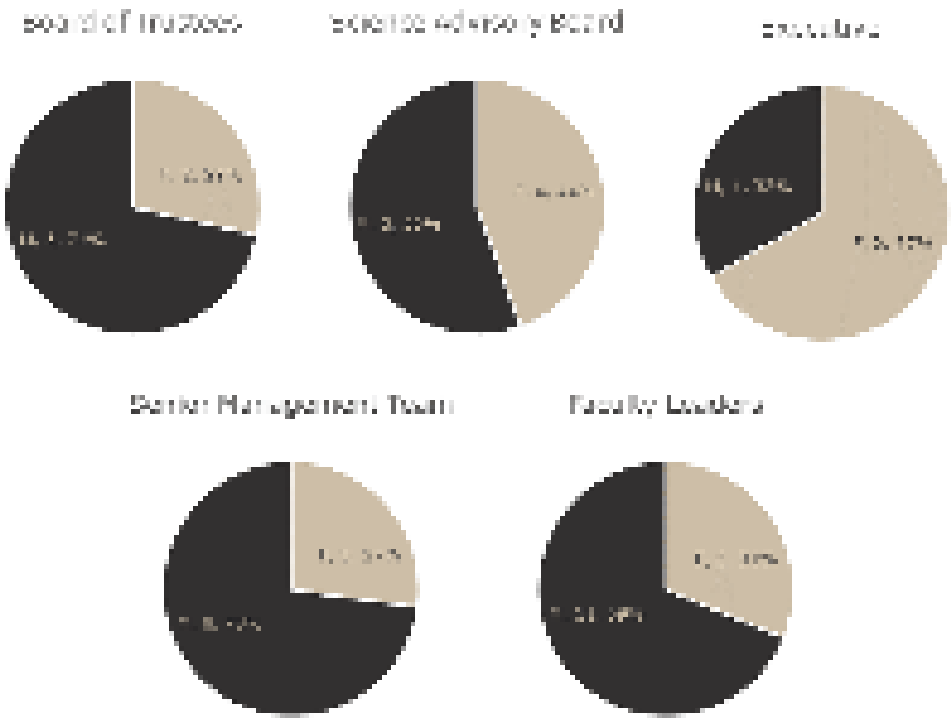


Figure 19:
Gender composition of decision making committees at TGAC

Workload model

Describe the systems in place to ensure that workload allocations, including pastoral and administrative responsibilities (including the responsibility for work on women and science) are taken into account at appraisal and in promotion criteria. Comment on the rotation of responsibilities e.g. responsibilities with a heavy workload and those that are seen as good for an individual's career.

Our Action Plan also includes the development of a workload allocation model, to avoid potential biases in allocating tasks to our researchers (Student supervision, committee participation, grant reviewing, interview panels, and public outreach), which will support annual discussions on performance review (AP 4.5). As indicated above, the tenure track evaluation also includes a section on responsibilities beyond scientific research, including mentoring, civic duties and public outreach.

Timing of institute meetings and social gatherings

Provide evidence of consideration for those with family responsibilities, for example what the institute considers to be core hours and whether there is a more flexible system in place.

All TGAC major forums avoid Fridays as this is the most frequent day taken as non-working by our part-time employees and employees working flexibly. We will also modify the day on which our Science Faculty meetings are held, which previously were held on Fridays. Meetings are held within our core hours from 10:00 to 4:00pm. A main social opportunity is offered through the Wednesday seminars (held mid-day), following which refreshments are provided.

Culture

Demonstrate how the institute is female-friendly and inclusive. 'Culture' refers to the language, behaviours and other informal interactions that characterise the atmosphere of the institute, and includes all staff and students.

The Institute holds monthly TGAC-all meetings, which are very well attended by all staff (82% at our last event). These meetings provide the opportunity to celebrate achievements made by diverse groups within the Institute and to manage communications pertaining to changes in the workplace. On an annual basis, we plan to recognise significant contributions, through "TGAC awards" presented at the Institute's anniversary (AP 6.5). Results from the 2015 Civil Service People Survey tend to support an inclusive and supportive working environment (table 6)

Table 6 : Metrics of Organisational Culture assessed by the Civil Service People Survey (2015) *(neutral responses are indicated when positive responses are below 75%)*

	% Positive responses Research Division *(n=34,58% response rate)*	% Positive responses Platforms and Pipelines *(n= 26, 100% response rate)*
I think my organisation respects individual differences *(e.g. cultures, working styles, backgrounds, ideas, etc.)*	82%	92%
My manager is open to my ideas	79%	92%
The people in my team can be relied upon to help when things get difficult in my job	79%	88%
I am treated fairly at work	68% (24% neutral)	85% (12% neutral)
I would recommend my organisation as a great place to work	79% (12% neutral)	73% (19% neutral)
I have some really good friendships at work	85%	88%

As indicated above, the field of genomics suffers from a generalised low representation of female researchers. We have begun to consider the gender representation of invitations sent to speakers at our external seminars, and strive to achieve a 50% balance in invitations (AP 6.1). We will also work with our Communications team to identify prizes and awards for female researchers at the Institute and support them through their application, to increase the visibility of women in genomics (AP 6.2). TGAC has hosted a recent ResNet event featuring Prof Dame Janet Thornton, former Director of EMBL-EBI, and a TGAC Trustee Director. In addition to providing an inspirational role model in pursuing a remarkable career in a male-dominated field, Prof Dame Thornton was amongst the first female scientists in the UK to hold a research fellowship on a part-time basis to accommodate her family responsibilities. TGAC will also host the next Athena SWAN regional meeting in May 2016, which will demonstrate our institutional commitment towards gender equality to our staff and students. A blog post will also summarise our journey in developing our first Athena SWAN application, for internal and external promotion (AP 3.4).

Figure 20:
Advertisement of a recent ResNet event, sponsored by TGAC
Prof Dame Janet Thornton has delivered an inspiring presentation on her experience of building an exceptional research career while balancing her family responsibilities, including holding her postdoctoral fellowships on a part-time basis.

Finally, the Institute was fortunate in providing a female role model in genomics at its highest rank, with Professor Jane Rogers as founding director. Prof Rogers has overseen the UK contribution to the Human Genome Project, and remains the most prolific British female scientist by number of citations. We plan to celebrate this legacy in renaming our main seminar room in her honour, along with a description how she contributed to trailblazing projects in genomics, of unprecedented scale and complexity (AP 6.6).

Outreach activities

Comment on the level of participation by female and male staff in outreach activities with schools and colleges and other centres. Describe who the programmes are aimed at, and how this activity is formally recognised as part of the workload model and in appraisal and promotion processes.

TGAC is highly active in training and public outreach, which is supported by a team with significant expertise. Our staff are encouraged to participate in outreach activities, with the expectation that they will dedicate one day per year to such activities as part of their performance review. However, many of our researchers devote much more time in designing and delivering specialised training, which facilitates networking opportunities for the Institute, but also provides an opportunity to address the gender imbalance in genomics and bioinformatics.

Figure 21:
Gender composition of staff involved in public outreach, training, and the gender of trainees at TGAC
Although the gender balance of our staff involved in public outreach is near gender parity (70F, 89M), the staff involved with advanced training shows a lower proportion of women (30F, 72M). However, TGAC is contributing to training a large number of women in genomics and bioinformatics (198F, 262M), which we hope will increase the gender diversity of our applicant pool in the future.

The composition of public outreach event staff project a gender balanced image of scientific experts, a positive aspect in influencing the perception of scientists for children and the general public. Women are not as well represented in the "trainers" group, which delivers specialised material to scientists, which reflects the gender composition of senior researchers at TGAC. However, the gender composition of trainees for advanced techniques in genomics is closer to reaching gender balance, an encouraging sign for the next generation of researchers in this field.

Through our work on Athena SWAN, a working group for training and outreach in computing was formed, with representation from all groups within the Institute, and including a female student representative. This has already led to several planned initiatives to increase the diversity of the skilled workforce in computing and genomics. This includes the collaboration with industrial sponsors in providing training opportunities to young students about to choose their GCSE and A-level subjects (AP 7.1). At a much more advanced level, our Head of Computing is also seeking sponsorship for a Daphne Jackson fellowship, offering a retraining opportunity for a researcher having taken a significant career break (AP 7.4), which we hope will contribute to increasing the female representation in our postdoctoral group. Through our website, we also hope to break down barriers to developing interest in computing through a blog series describing the work of bioinformaticians (AP 7.3).

Flexibility and managing career breaks

Provide data for the past three years (where possible with clearly labelled graphical illustrations) on the following with commentary on their significance and how they have affected action planning.

- Maternity return rate
- Paternity, adoption and parental leave uptake
- Applications and success rates for flexible working

For each of the areas below, explain what the key issues are in the institute, what steps have been taken to address any imbalances, what success/impact has been achieved so far and what additional steps may be needed.

- Flexible working
- Cover for maternity and adoption leave and support on return

Maternity return rate

Comment on whether maternity return rate in the institute has improved or deteriorated and any plans for further improvement. If the institute is unable to provide a maternity return rate, please explain why.

TGAC offers a generous package for maternity, paternity and parental leave. Maternity leave consists of 26 weeks at full pay, followed by 13 weeks of statutory maternity pay and 13 weeks of unpaid leave. The number of women taking a period of maternity leave is fairly stable, at 5% over the past 3 years. So far, all women have returned to the institute following this leave (100%).

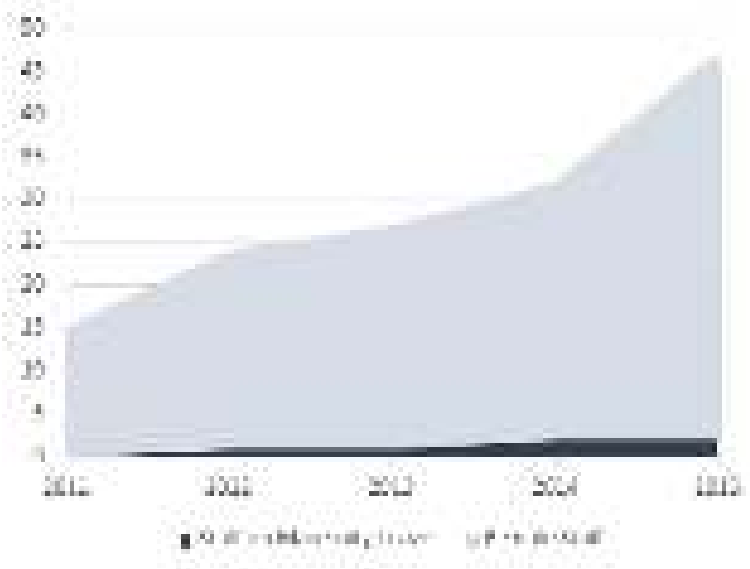


Figure 22:
Frequency of maternity leave at TGAC, compared with growth of female staff at the Institute
The frequency of maternity leave (1 in 2012, 1 in 2013, 2 in 2014, 2 in 2015) is increasing along with staff numbers, following a lag period (5% of our female staff on average). TGAC has had to support female researchers at postdoctoral and research leader levels for the first time in 2015.

Paternity, adoption and parental leave uptake

Comment on the uptake of paternity leave by grade and parental and adoption leave by gender and grade. Has this improved or deteriorated and what plans are there to improve further.

Two weeks of paternity or maternity support leave are offered to employees. With a substantial proportion of young fathers at the Institute, the uptake of leave has been high (5 occurrences of paternity leave in the past 18 months), but the formal documentation of this period of leave has been variable. This has raised the need for better advertised policies and procedures surrounding paternity leave (AP 8.3), as well as training for line managers (AP 8.2).

Up to 18 weeks of unpaid parental leave (maximum 4 weeks per year per child) are offered to employees. No applications for parental leave have been received in the past 3 years, which is likely due to financial considerations. However, we will more clearly advertise this policy (AP 8.1) to ensure that this poor uptake does not result from low awareness or perceived support.

Numbers of applications and success rates for flexible working by gender and grade

Comment on any disparities. Where the number of women in the institute is small applicants may wish to comment on specific examples.

Formal applications for flexible working are rare, with only 3 documented applications in the last 3 years. Two (1F, SC6, 1M, SC5) were granted to accommodate childcare responsibilities. One application to work from home one day per week, was refused (1F, SC3) on the basis that the managerial responsibilities associated with this role did not allow the Institute to accommodate such a request.

Comment on the numbers of staff working flexibly and their grades and gender, whether there is a formal or informal system, the support and training provided for managers in promoting and managing flexible working arrangements, and how the institute raises awareness of the options available.

The nature of the research work carried out at TGAC lends itself to high levels of flexibility, and survey responses indicate high levels of support of life outside of work (Table 7):

Table 7: Metrics of Work Flexibility assessed by the Civil Service People Survey (2015)

	% Positive responses Research Division *(n=34, 58% response rate)*	% Positive responses Platforms and Pipelines *(n= 26, 100% response rate)*
My manager is considerate of my life outside of work	82%	92%
I have a choice in deciding how I do my work	85%	81%

Very few requests for flexible working have been formally recorded through our HR system. However, we use an institutional platform to record absences (fully implemented in May 2015), which indicate that the majority of our staff has benefitted from timely flexible working arrangements (figure 22). In addition, 9.4% of our staff have negotiated part-time working arrangements to accommodate family responsibilities or continuing education. The promotion of our supportive policies for flexible working and families will be further advertised on our website (AP 8.1). Finally, the Institute has provided financial support on an *ad hoc* basis to parents in covering childcare expenses to access training and development opportunities. This approach will be formalised and promoted through a new carer policy, made accessible to all (AP 8.4).

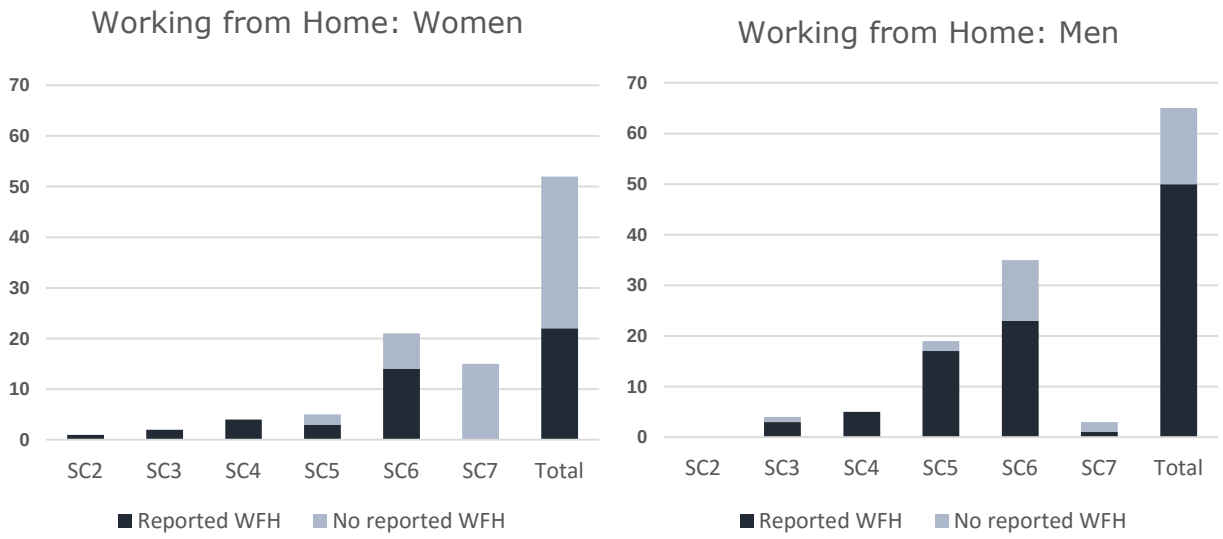


Figure 23:
Frequency of working remotely for female and male staff (2014-2015)
The majority of our staff has benefited from flexible conditions in working remotely. This is less frequent in roles at SC7 and SC6 levels, which are frequently lab-based, or in administrative support functions.

Cover for maternity and adoption leave and support on return

Explain what the institute does, beyond the institutes' maternity policy package, to support female staff before they go on maternity leave, arrangements for covering work during absence, and to help them achieve a suitable work-life balance on their return.

Although a number of female staff have taken a period of maternity leave, the Institute has faced this situation for the first time in 2015 for research leaders and postdoctoral researchers. One postdoctoral researcher has had her fixed-term contract extended following her return to work, which was done on a part-time basis. One female research leader is also currently on maternity leave. It was decided that a senior postdoctoral researcher would be offered an increase in salary, through a responsibility allowance, to provide cover for work carried out by this research group. This model is working successfully and would be considered in the future to support our research leaders (AP 8.6). Previously, all other female employees were supported in returning to work on either a part-time basis, on in modifying their work schedule. Breastfeeding mothers benefit from a dedicated room on site, and the creation of a nursing room in the main TGAC building will be included as part of planned renovation work at the Institute (AP 8.6).

(4195 words)

SECTION 6

Other comments

Please comment here on any other elements which are relevant to the application, e.g. other STEMM-specific initiatives of special interest that have not been covered in the previous sections. Include any other relevant data (e.g. results from staff surveys), provide a commentary on it and indicate how it is planned to address any gender disparities identified.

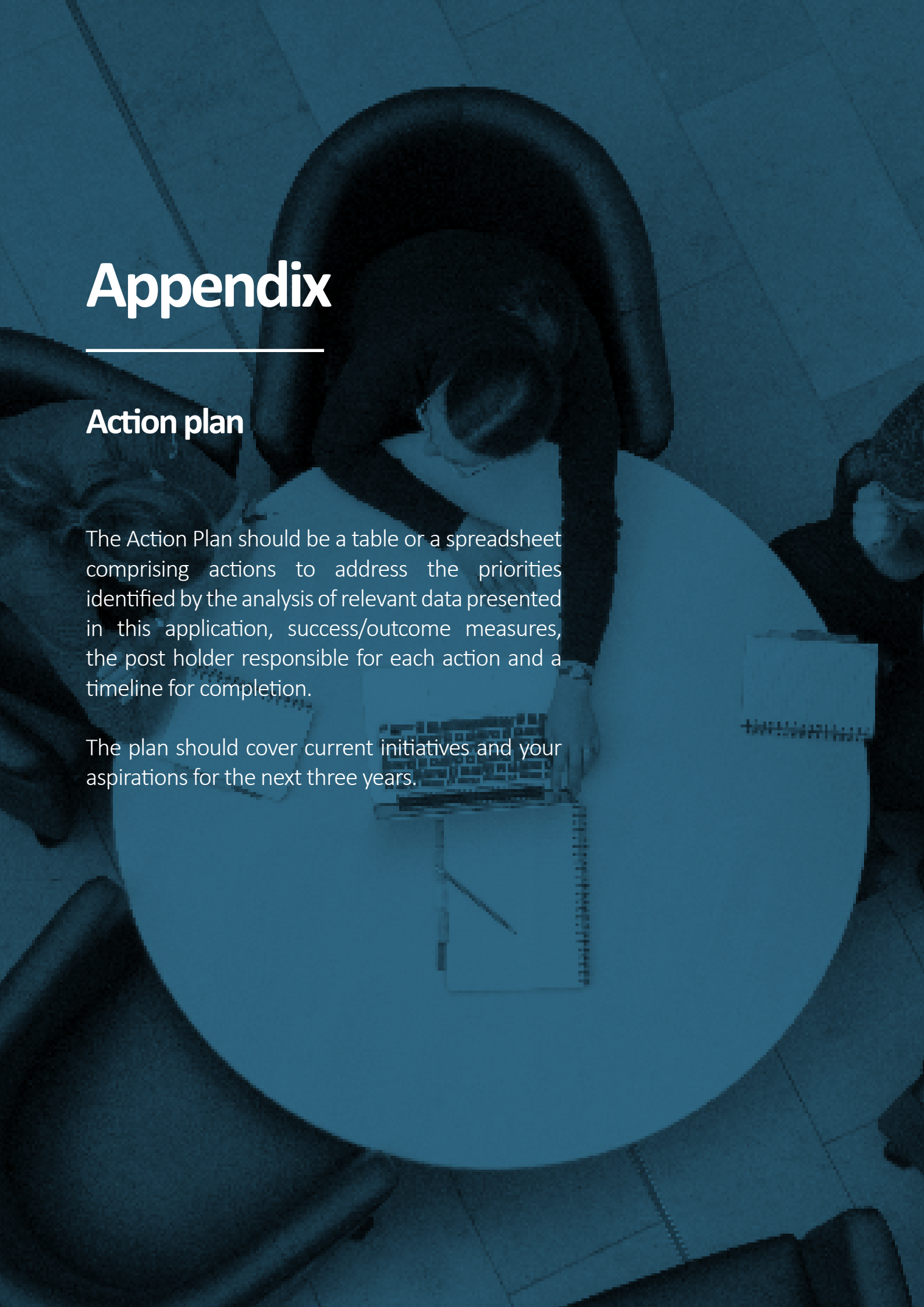
Other Comments

Support for LGBT staff at TGAC

TGAC wishes to provide a supportive and inclusive working environment for our LGBT staff members and students, with consideration for same sex families and staff undergoing a gender transition. We will work with our NBI partners in updating our equal opportunity forms to further acknowledge trans or non-binary gender identities (AP 9.1). The toilet facilities at TGAC were recently renovated to provide individual cubicles rather than a shared area, with the availability of gender-neutral options.

TGAC will seek to remain aware of supportive practices for our LGBT staff by liaising with NGOs such as Stonewall (AP 9.2). Finally, through our involvement in the NBI Equality and Diversity Committee, we will propose to highlight the LGBT history month at the level of the Research Park (AP 9.3), to provide LGBT role models in a research setting for our staff and students, celebrating the diversity of our workforce.

(146 words)



Appendix

Action plan

The Action Plan should be a table or a spreadsheet comprising actions to address the priorities identified by the analysis of relevant data presented in this application, success/outcome measures, the post holder responsible for each action and a timeline for completion.

The plan should cover current initiatives and your aspirations for the next three years.

TGAC Athena SWAN Bronze Action Plan: 2016-2019

Note: This Action Plan mainly sets out our work on a 2-year horizon, as we strive to improve our processes and launch initiatives in this timeframe. Should the Institute be succesful in achieving these objectives within 2 years, a new Action Plan will be developed with more ambitious goals as part of an application for Silver Award in 2018.

	Action	Who	How	When	Success measure
1. Gender Equality: Monitoring, Reporting and Governance					
1.1	Equality and Diversity Committee to meet quarterly to monitor delivery of Action Plan	Head of RFO (Chair)	Individuals responsible for delivery on action points to report on progress 2 weeks ahead of meetings	Quarterly	Meetings held, and achievements on Action Plan monitored and enabled
1.2	Equality and Diversity Committee to report progress on Action Plan to the TGAC Senior Management Team	Head of RFO (Chair)	Annual reporting against Action Plan measures E&D chair to report to SMT informally on quarterly basis	Annually Quarterly (informal)	Senior management aware of institutional priorities pertaining to equality and diversity and demonstrating leadership on diversity in the workplace
1.3	Annual reporting to Board of Trustees	Head of RFO (Chair)	Annual reporting against Action Plan measures	Summer 2016, then Yearly	Board of Trustees fully aware of progress of institutional commitments, in line with expectations from E&D BBSRC plan
1.4	Enhance gender balance of Senior Management Team	Director	Rotation of researchers on committee taking both gender balance and workload management into account Nominate deputees for roles on SMT, with a view to increase the involvement and exposure of women to the decision-making process	Spring 2018	Increased Female representation in SMT meetings.
1.5	Improve gender balance of Board of Trustees	Executive support to Board of Trustees	Proactive search for female candidates at the end of term of current Trustee Directors	2017	Reaching a 50/50 MF membership, as per BBSRC guidelines, by 2017

TGAC Athena SWAN Bronze Action Plan: 2016-2019

	Action	Who	How	When	Success measure
2. Gender Equality: Improve Data Provision					
2.1	Align job categories with AS analysis in HR database	NBI HR	Updating AS field to reflect TGAC analysis	Dec. 2016	Up-to-date data provision, facilitating monitoring and reporting
2.2	Achieve higher response rates on civil service survey to allow for gender analysis	RFO	Describing impact of survey results on AS initiatives	Oct. 2016	Reach 70% response rate in Science Faculty Maintain high response rate (>70%) in all other teams
2.3	Increase scope of civil service survey to gather views on work-life balance and caring commitments on a yearly basis	DoO NBI HR	Request the addition of questions to Civil Service Survey, or send supplementary questions as part of survey process	Oct. 2016	Poll all staff on full range of aspects relevant to Athena SWAN
2.4	Monitor trends in exit surveys	DoO NBI HR	Review exit questionaire Consider options to monitor career destination of staff and trainees	Part of annual reporting, starting in 2017	Data available to identify any potential gender differences affecting the decision to leave the Institute, and to inform strategic HR decision making
2.5	Monitor attendance to conferences and training to identify any gender differences in access to development opportunities	Business Support NBI HR LD	Gather conference data from electronic institutional records Compile local training uptake from Learning and Development	April 2017	Data available to understand any potential gender differences in career development opportunities

TGAC Athena SWAN Bronze Action Plan: 2016-2019

	Action	Who	How	When	Success measure
3. Increasing the recruitment of female researchers					
3.1	Formulating gender neutral job advertisements	NBI HR	Integrate literature on gender norms, emphasise collaborative nature of our research work Monitor gender application rate	Sept. 2016	Higher proportion of female applications in scientific positions from 32% to 40% at D/SC6 level by 2018 from 15 % to 30% at E/SC5 level by 2018
3.2	Positive action to promote opportunities at postdoctoral level to female researchers	TGAC HR Recruitment team	Funds held centrally for enhanced advertisement to female researchers (e.g. social media, ResearchGate)	Sept. 2016	Higher proportion of female applications in scientific positions from 32% to 40% at D/SC6 level by 2018 from 15 % to 30% at E/SC5 level by 2018
3.3	Internal advertisement of scientific vacancies, encouraging staff to promote opportunities to women	RFO TGAC HR Recruitment	Email, and posting of opportunities, emphasising our commitment to increase our recruitment of female scientists	Sept. 2016	Higher proportion of female applications in scientific positions from 32% to 40% at D/SC6 level by 2018 from 15 % to 30% at E/SC5 level by 2018
3.4	Redesign of TGAC website to promote women in science	BDC RFO	Increase visibility of female scientists at the Institute Careers section promoting quality of work environment and family friendly policies Documentation of work on Athena SWAN	July 2016	Projecting a positive and inclusive working enviroment to external visitors Measured through an increased female traffic to the careers section of the website by July 2017
3.5	Promote bioinformatics as highly suitable for flexible working	BDC RFO	Provision of case studies	July 2017	Provide examples of female researchers transitioning to bioinformatics to support a work-life balance on TGAC website

RFO: Research Faculty Office
DoO: Director of Operations
DoS: Director of Science

NBI HR LD: Norwich Bioscience Institutes, Human Resources, Learning and Development

BDC: Business Development and Communications
GSO: Graduate Studies Office
STEL: Scientific Training, Education and Learning

TGAC Athena SWAN Bronze Action Plan: 2016-2019

	Action	Who	How	When	Success measure
4. Encouraging the career progression of women at TGAC					
4.1	Unconscious bias training	NBI HR LD	Materials sourced or developed in collaboration with NBI Learning and development Priority for managers, and mandatory requirement for interview panel members; subsequently all staff	June 2017	100% Line managers trained By June 2017, 100% staff by April 2019
4.2	Reaching full compliance in setting and reporting 2-, 4- and 6-months (or 9, based on role) objectives, leading to end of probation period.	NBI HR	Sharing compliance metrics with SMT Integrate metrics from survey	April 2018	New staff will hold regular discussions with line managers on work objectives and progress on projects, applied consisistently across the Institute. 100% compliance reached in April 2018
4.3	Provide guidelines for performance reviews tailored to different staff categories within organisation	NBI HR NBI HR LD	Ensure discussion of career aspirations in setting work objectives for year ahead Integrate results of Learning and Development consultations to adapt training to identified needs	January 2017	Acknowledge different needs and aspirations, and identify opportunities to develop in current role: increase in positive responses to questions B15, B16, B17 in Civil Service Survey
4.4	Implement consistent tenure track mechanism for new research leaders	DoS, RFO	Sharing ToR for appointment Nomination of mentor as part of development opportunities	Autumn 2016	Clear understanding of expectations for promotion within Institute. Evaluated through additional questions on TGAC staff survey, with positive impact visible in 2018
4.5	Develop workload allocation framework for Research Leaders	RFO, DoS	Consider requests for broad spectrum of responsibilities at TGAC: Student supervision, grant reviewing, interview panels, public outreach	Spring 2018	Process will support a fair process to assign requests to staff, limiting potential unconscious bias

TGAC Athena SWAN Bronze Action Plan: 2016-2019

	Action	Who	How	When	Success measure
4.6	Leveraging role of appraisal co-signatory in providing mentorship, with a particular emphasis on early career researchers	Executive	Discussions with SMT Communications to staff in Autumn 2016, ahead of performance appraisals in Spring 2017 Question on staff surveys to measure impact	Spring 2017	Awareness and use of resource to be assessed in difference between 2016 (baseline) and 2017 and 2018 surveys, informing communications about co-signatory role
4.7	Improve awareness of promotion mechanisms (including pay reviews and bonuses)	NBI HR DoO	Send guidelines for promotion (pertaining to pay and grade) ahead of performance reviews Conduct pay review to ensure there is no salary difference between comparable roles Perform gender-based analysis on questions pertaining to performance reviews to identify and address potential differences	February 2017 Nov. 2017 Jan. 2017	Gender balance of promotion events and allowances representative of gender balance in different job categories
4.8	Monitor the gender representation of postdoctoral researchers and staff scientists put forward for grant funding	RFO	Maintain statistics on grant submissions If gender bias is found: raise awareness of bias in opportunity, and potential for inclusivity through grant submissions Proactively encourage and support women to submit applications	Sept. 2016	Gender balance of researchers named on grants in line with gender representation at Institute
4.9	Gender equality in success rates for applications to internal competitions	RFO NBI HR	Monitor internal applications to open competitions to identify potential gender differences Support staff in developing applications	Spring 2018	Success rates reflecting gender balance in internal application pool

TGAC Athena SWAN Bronze Action Plan: 2016-2019

	Action	Who	How	When	Success measure
4.10	Financial contribution to the Post-Doctoral Voice, to support development opportunities aligned with needs identified at TGAC	RFO	Funds to support career development opportunities considered important by the Postdoc community Compile next destination data	Yearly	Investment made in facilitating the career progression of postdoctoral researchers at TGAC and elsewhere
4.11	Enhancing coaching capacity in organisation	NBI HR LD	Pilot for Institute of Leadership and Management Level 5 Certificate Programme in Coaching	April 2017	Greater dialogue supporting the career development of staff based on individual aspirations. Management staff qualified in coaching
4.12	Development of TGAC management community of practice	DoO	Regular, informal meetings to share best practices and to support the career development of TGAC managers	Sept. 2017	Growth of professional networks for managers, breaking the potential isolation created by "niche" managerial roles

RFO: Research Faculty Office
DoO: Director of Operations
DoS: Director of Science

NBI HR LD: Norwich Bioscience Institutes, Human Resources, Learning and Development

BDC: Business Development and Communications
GSO: Graduate Studies Office
STEL: Scientific Training, Education and Learning

TGAC Athena SWAN Bronze Action Plan: 2016-2019

	Action	Who	How	When	Success measure
5. Supporting Female Postgraduate Students at TGAC					
5.1	Acquire data on publication outputs and communication opportunities for postgraduate students to address potential gender differences	RFO	Our supervisory committees will receive guidance to ensure that our students are equally aware, encouraged and supported to generate publications from their work, as well as encouraging the presentation of research at scientific conferences	Sept. 2017	No gender difference in publication output of graduating students or attendance to conferences
5.2	Promote the composition of gender balanced PhD supervisory teams	GSO and TGAC PGR Director	Provide guidelines to primary supervisors of PhD projects reminding the importance of gender balanced committees and the right of PhD students to request female representatives	August 2016	Supervisors taking recommendation on board ahead of 2016 student intake, and for the development of 2017 projects
5.3	Financial support to PhD student committee to support networking and career development opportunities	Director, RFO PGR Director	Financial support and guidance from Executive on budget management	Yearly	PhD students identfy and obtain relevant development opportunities supporting their future career
5.4	Communicating policies on leave provisions to students, availability on website	GSO BDC	Consider conditions for students with alternative sources of funding (non-council)	Dec. 2016	Students are aware of leave provisions
5.5	Provide examples of role models and mentors to female PhD students	RFO GSO	Hold panel event on “women in science” to expose students to different career paths taken by female scientists on NRP	Summer 2017	Female students have visible role models allowing them to identify with a future research career
5.6	Provide logistical support to PhD-led training in bioinformatics	STEL PhD student committee	Develop workshop-based training for NRP postgraduate students	Autumn 2017	First training event delivered with gender balance of trainers Mentoring of new students
5.7	Link new students to NRP alumni	GSO PGR Director	Provide access to mentors in consideration of career opportunities	Summer 2017	PhD graduates have access to a broader professional network and understanding of future career options

RFO: Research Faculty Office
DoO: Director of Operations
DoS: Director of Science

NBI HR LD: Norwich Bioscience Institutes, Human Resources, Learning and Development

BDC: Business Development and Communications
GSO: Graduate Studies Office
STEL: Scientific Training, Education and Learning

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	Action	Who	How	When	Success measure
6. Fostering an Inclusive Work Culture					
6.1	Reach 50% invitation levels for female speakers as part of external seminars	RFO	Seek input at Science Faculty Meetings, monitor invitations	Autumn 2016	Objective of 50% met
6.2	Hosting next Athena SWAN regional meeting	RFO	Liaise with ECU	May 2016	Meeting held
6.3	Advertisement of awards and prizes for Women in Science and support in developing applications	Coms RFO	Identify opportunities and encouraging women to apply	Autumn 2017	Enhanced visibility of scientific achievements by female scientists on website and TGAC-all events, and support of career development Measured through an increase in nominations for prizes and awards
6.4	General meetings accessible to part-time employees	DoO RFO	Move away from holding TGAC-all, seminars and science faculty meetings on Fridays; ensure to remain within core hours	Spring 2016	Ensuring fully inclusive TGAC events
6.5	Recognise exceptional contributions to the Institute through TGAC awards (all roles)	Executive RFO	Identify gender balanced contributions from a diversity of groups within the Institute Announce awards in Autumn 2016	Summer 2017	Enhanced awareness and recognition of contributions to the Institute
6.6	Celebrate legacy of Jane Rogers, founding director of TGAC	RFO BDC	Main seminar room to be renamed the "Jane Rogers Room", with description of career achievements in Institute entrance Official ceremony to celebrate new room, highlighting AS Bronze award if obtained	December 2016	Ongoing recognition of the importance of contributions from women in genomics within TGAC

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	Action	Who	How	When	Success measure
7. Enhancing the training provision for women in computing					
7.1	Provide opportunities for girls to acquire early computing skills and to take part in the computing community (partnership with industrial sponsors)	Head of scientific computing Public Outreach	Develop modular training workshops to expose college students to computing Organise a 1-week summer school to 15-20 GCSE students (gender balanced) providing access to advanced computing methods and facilities Develop CPD training materials in computing for secondary teachers	Summer 2018	Funding sought and secured Materials developed Gender-balanced group of participants
7.2	Encourage researchers to host undergraduate and postgraduate research placements, consolidate data for monitoring	STEL RFO	UEA Summer School JIC International Summer School Year in Industry PIPS placements, DEANN exchanges	December 2016	Researchers aware of all opportunities, and supported in recruited a gender balanced cohort of trainees
7.3	Encouraging a diverse group of scientists to consider bioinformatics	BDC	Blog posts “a day in the life”, describing transition to bioinformatics, lowering perceived threshold to participation	Spring 2016	Monitor gender of site visits through analytics and promote website through social media- Expect a 40% proportion of females in web traffic by Spring 2018
7.4	Seek sponsorship from industrial partners to host a Daphne Jackson Fellowship at TGAC	Head of Scientific Computing	Secure funding	Spring 2017	Offer a retraining opportunity in bioinformatics at postdoctoral level every 2 years

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	Action	Who	How	When	Success measure
8. Supporting work-life balance and career breaks					
8.1	Develop document on family friendly policies available on external website	DoO and NBI HR	Assemble statistics and policies promoting the support offered by TGAC towards flexible working and family friendly policies	Autumn 2016	Document available online
8.2	Provide training to line managers on leave related to parental or caring responsibilities	NBI HR	Training sessions and provisions of supporting materials (flowchart) on administrative processes Training on holding discussions for return to work, including Keeping in Touch Days (10) and phased return (using accrued annual leave) or flexible working policy	Winter 2017	All line managers aware of processes All paternity leave formally requested Consideration of phased return as part of return to work
8.3	Enhance awareness of policies promoting work-life balance	NBI HR DoO	Send yearly reminders Core hours, flexible working (part-time, compressed hours, working from home), unpaid leave	Dec. 2016 Yearly reminders	Increased awareness of available policies - Mesured through through TGAC survey
8.4	Formalise provision of carer policy to financially support staff with caring responsibilities in accessing development opportunities	DoO	Funding provision and policy developed for a consistent application process	Autumn 2016	Staff aware of availability of funding source when considering development opportunities
8.5	Create welfare space within TGAC building	DoO	Consider creating dedicated space for expecting or nursing mothers as part of refurbishment	Summer 2018	Room provided
8.6	Mitigating impact of maternity leave on research and career progression	Executive	Earmark funds to support maternity leave from core funds, allowing research leaders to provide cover for research if required, or extending duration of contract when allowed by funding	Spring 2017	Female researchers are enabled to resume a productive research programme, the Institute is supportive of new family responsibilities

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	Action	Who	How	When	Success measure
9. Promoting LGBT equality at TGAC					
9.1	Aquiring relevant data to support LGBT minority groups	DoO NBI HR	Work with NBI partnership to update Equal Opportunity monitoring form to provide reporting options for non-binary and trans gender identities	Sept. 2017	Acquire representative HR data to identify gender-based trends Supporting the broadening spectrum of gender definitions
9.2	Seek expertise on supporting NBI LGBT community	DoO	Liaise with NGOs (e.g. Stonewall) in identifying best practices to support an inclusive environment for LGBT students and staff	April 2017	Fostering an inclusive workplace supporting LGBT minotities, including the consideration of non-traditional families
9.3	Highlight LGBT history month, demonstrating support for Staff and Students	DoO liase with NBI Equality and Diversity	Liaise with NRP partners to hold panel event "LGBT in Science" Advertise high quality resources developed by larger organisations (e.g. Royal Society)	Feb. 2018	Organisational awareness of challenges faced by LGBT minority groups Presence of LGBT role models and building community support