Athena SWAN Silver department award application

Name of university: University of Strathclyde

Department: Physics

Date of application: 30/11/2013

Date of university Bronze and/or Silver Athena SWAN award: August 2011

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1. **Letter of endorsement from the head of department: maximum 500 words**

Please see below

DEPARTMENT OF PHYSICS

31 October 2013

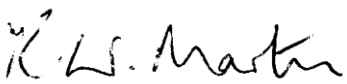
Dear Athena SWAN Panel

As Head of the Strathclyde Physics Department, I am pleased to give my very strong endorsement to this application and the six Athena SWAN principles. I have been an active member of our self-assessment team and fully support our action plan. It has been instructive and informative working with the team to further explore the relevant issues and data. As on so many occasions I have been impressed by the hard-work and professionalism of my colleagues and their efforts to make a difference in areas of importance, such as the promotion of equality and diversity. As Head of Department I am committed to seeing our Athena Swan action plan successfully applied to all areas of activity and strategy.

This Department is dedicated to world class research and training in physics, covering research in the principal areas of optics, plasmas and nanoscience. We have a suite of MSc courses and four undergraduate degree courses. We aim to promote equality in all our activities. We run an open and wide-reaching programme of events aimed both at supporting physics students at school and at recruiting undergraduates. These are all aimed at those with potential, regardless of gender or other factors. Members of the Department have a strong track-record in outreach events, including a long-running series of activities aimed at promoting Physics to female students (Women into Science Workshops were initiated in 1989). We believe that increasing the number of women studying Physics will provide a strong basis for feed-through into postgraduate study and subsequently into academic employment. Hopefully, before long some of these women attracted to study physics will be Professors of Physics in institutions here or abroad. We have a good number of female graduates who have found success in scientific careers, who serve as excellent role models. To encourage equality and diversity for both research and academic staff we strive to offer a flexible and supportive working environment, backed by extensive support from the University.

We have been monitoring and working on equality issues since 2010, although without doubt the process leading to this application has taken this to new levels. Through this time we've learnt much about the Department and how we function, and in a number of areas room for improvement has been highlighted. We are committed to continue the required monitoring and to taking actions to promote equality and equal opportunities. Our Athena SWAN physics self-assessment team, on which I'll continue to serve, will take such matters forward through our action plan. Award of an Athena SWAN Silver Award would present the Department with an excellent opportunity to build upon the good practice we have developed in recent years and provide a strong base to ensure the best possible career development and progression for existing and future female Physicists at Strathclyde. Within three years we plan to have in place the infrastructure and support to achieve this, and aim to have an increased percentage of female research and academic staff at all levels.

Yours faithfully



Prof. Robert Martin
Head of Department
Department of Physics

2. The self-assessment process: maximum 1000 words

Describe the self-assessment process. This should include:

a) *A description of the self assessment team: members' roles (both within the department and as part of the team) and their experiences of work-life balance*

Our physics self-assessment team (PSAT) was selected to reflect the diversity of experiences and roles within the Department and to ensure all sections of the Department are represented. Therefore male and female, full-time and part-time staff and postgraduate student members were selected from across our research divisions. We ensured wide representation across the staff grades (a professor, reader, senior lecturer, lecturer and research fellow). The Departmental Administrator provides an important additional perspective.

A wide range of training courses, designed to meet the training and development needs of staff and research students, are provided by the University's Organisational and Staff Development Unit and the Researcher Development Team. As these teams provide valuable support to our staff and students, a Development Adviser was invited to join PSAT. Finally, Strathclyde's Athena SWAN Officer completes our team.

Prof. Robert Martin is Head of Department and a Professor in Nanoscience. He has worked at Strathclyde University for 20 years, starting as a Lecturer. He is married with three children and has direct experience of childcare responsibilities from young children to young adults. He is a member of the University's Athena Swan steering group.

Dr Carol Trager-Cowan is a reader in structural and luminescence studies of solids. She is the Athena SWAN Champion for the Department. She has worked in the Department for 26 years. She was the first convener of WISE (Women into Science and Engineering) in Scotland and was part of Strathclyde University's Women into Science and Technology initiative aimed at encouraging more women to study science and engineering. She is a member of Strathclyde's Athena SWAN Bronze university award self-assessment team.

Dr Alison Yao is a lecturer in theoretical and computational optics. After a career break of 8 years to look after her children she returned to Strathclyde part-time (50%) with a Daphne Jackson research fellowship. She has been working full-time for the last 4 years.

Dr Aidan Arnold is a senior lecturer in ultracold atoms. He began at Strathclyde 14 years ago with a Royal Society of Edinburgh fellowship, and was promoted to lecturer in 2002. Since the birth of the first of his three children in 2001 he has worked part-time to share childcare with his wife (a reader in Physics at Glasgow University).

Dr Alan Young is a Research Fellow with the Atoms, Beams and Plasmas Group in the department of Physics. He is married with three young children.

Catherine Mitchell is a third year postgraduate student in marine optics and remote sensing.

Kirsten Munro is the Departmental Administrator for Physics and has worked in the department for approximately 10 years. Kirsten manages an administrative team of seven and provides the department with the support it requires to undertake its many activities.

Josephine Dick is an experienced Learning and Development Professional with experience working in both Private and Public sector organisations. Josephine has been working in Strathclyde for 18 months as a full time Staff Development Adviser for Research Staff.

Annie McLaughlin is the University's Athena SWAN Officer. She joined Strathclyde in June 2013 and is supporting departments in Science and Engineering to apply for Athena SWAN awards, as well as co-ordinating the renewal submission for the institutional Bronze award.

[530 words]

b) an account of the self assessment process: details of the self assessment team meetings, including any consultation with staff or individuals outside of the university, and how these have fed into the submission

Our Department has been contributing to activities to promote Physics to women since 1989 with the inception of our 'Women into Science' Workshops run for 2nd year school pupils about to make their subject choices. Our Equality and Diversity Team (EDT) was initially set up in 2010, and subsequently expanded to form the PSAT early in 2013. The PSAT meets about once a month.
EDT's aims were to raise awareness of equality and diversity issues; acquire and assess statistics; seek opinions from across the Department and address any causes of concern. From the inception of EDT, "Disability, Equality and Diversity" has become a permanent agenda item at our Departmental Committee meetings, which is the key decision making committee and includes all academic staff and representatives of research, technical and administrative staff.

An Equality and Diversity website[1] was set up, including links to information on topics ranging from child care to courses run by The Scottish Resource Centre for Women in SET. An equality and diversity questionnaire was compiled in 2011 and used to collect the views of all staff and research students. Completion of the questionnaire was encouraged through the running of a social event and raffle. The questionnaire results demonstrated the value of advice that probationary academic staff received from their advisers, leading to a proposal from the EDT that mentoring be made available to all staff. This is now going forward through a university-wide mentoring scheme with members of the Department participating in the first year of the scheme. In addition research staff have been consulted by questionnaire on issues such as support, training, and opportunities for flexible working provided by the Department. A focus group was formed to provide a forum for female postgraduates and staff to discuss important issues in the Department, including a review of support activities to identify those that are effective and those that could be improved and/or introduced (e.g**. Actions 3.3, 4.5**).

Members of PSAT have regularly attended JUNO[2] meetings and Athena Swan meetings within Strathclyde and at other Institutions. Members of PSAT also took part in *"Tapping all our Talents"*[3] events run by the Royal Society of Edinburgh. A draft of our full Athena SWAN application was circulated to all members of staff in the Department and to the student members of the staff-student committee for comment.

[1] http://equal-div.phys.strath.ac.uk/
[2] http://www.iop.org/policy/diversity/initiatives/juno/
[3] http://www.royalsoced.org.uk/cms/files/advice-papers/inquiry/women_in_stem/tapping_talents.pdf

Action 3.3	Encourage use of part-time and flexible appointments for post-graduate research
Action 4.5	Encourage use of part-time and flexible appointments for research and academic positions

[386 words]

c) 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 team will continue to meet on a two-monthly basis to monitor the implementation and progress of current activities and those proposed in the Action Plan. Progress will be reported to the whole Department at our Departmental Committee meetings and through our Equality and Diversity webpage. A traffic lighting system will be adopted to allow rapid identification of areas needing attention.

[61 words]
[Total 977 words]

1. A picture of the department: maximum 2000 words

a) Provide a pen-picture of the department to set the context for the application, outlining in particular any significant and relevant features.

The University of Strathclyde was established in 1796 with a clear remit to widen access to education. Its guiding mission was, and is, to be 'the place of useful learning'. The Department still holds firmly to this ethos as well as to the positive principles of equality and equal opportunities. In 2012/13 the University was awarded the Times Higher Education UK University of the Year Award and the Department placed 10th in the Guardian Good University Guide for Physics.

The Department is a founder member of the Scottish University Physics Alliance (SUPA)[4] through which it maintains close and active links with the seven other Scottish Physics Departments. Our Research is organised into three overlapping research divisions: Optics, Nanoscience and Plasmas. The annual staff census at Oct 2012, records over 81 members of academic (35) and research (46) staff, of whom 11% are women. We currently have three female academics, including a recently promoted senior lecturer and a newly appointed lecturer, and eight female researchers.

We recruit about 90 undergraduates and 30 postgraduates per annum, both numbers having risen steadily over recent years. Although the proportion of females on our undergraduate degree courses has dropped slightly from a high of 30% in 2009 it remains statistically above the national averages. We are working to identify reasons for the fall and to establish actions to reverse the trend and keep us above average. We have identified that our retention rate is noticeably higher for females than males. Over the period 2009-12 our percentage of female postgraduate student in Physics has remained around 28%.

We are committed to excellence in teaching of physics and to promoting the uptake of this subject by as many suitably qualified students as possible. We strive to promote a friendly environment

[4] http://www.supa.ac.uk/

and have excellent participation from students in our staff student committee meetings. We are also fortunate to have an extremely active Physics Society. Females have taken on prominent and effective roles in both of these in recent years. The Physics Society, initiated by the students and run by them, is one of the University's most popular student societies and plays a significant role in encouraging women to enjoy and excel in the physics courses. For example, on their recent trip to CERN (see Fig 3a.i) almost 40% of the students were female.

Fig 3a.i. Members of the Physics Society visiting CERN in the summer of 2013.

We strive to be inclusive, friendly and supportive to all. Even though the percentage of women staff is low, we hope our efforts in these respects provide an excellent environment for women in particular. A number of our female graduates have progressed to notable roles in science outside the Department, for example:

- Professor of Biophotonics at Strathclyde University active in Physics PhD supervision and currently teaching on our undergraduate courses.
- Associate Professor of Physics at KAUST University, Saudi Arabia who pays regular research visits to the Department.
- Partnerships Coordinator/Senior Science Advisor at Glasgow Science Centre who plays a major part in defining, promoting and delivering their activities.
- Royal Academy of Engineering Research Fellow active in Physics PhD supervision and currently teaching within the Department.
- A practising medical physicist who has returned to give career talks in the Department.

The careers of more than 10 female graduates are profiled on our Alumni website[5], with the aim of providing a broad range of successful role models.

Our staff engage strongly in outreach events, ranging from "Advanced Higher Days" with secondary schools, through Open Evenings to "Science on the Streets" activities. All serve to promote physics to a wide audience. We make effort to celebrate our successes, through

[5] http://www.strath.ac.uk/physics/alumni/

announcements, newsletters and social events. The newly refurbished common room has been designed to promote staff interaction, benefit events such as open evenings and to help provide a friendly working environment. Fig. 3.a.ii shows prizes being awarded at the 2013 graduation reception in this area.

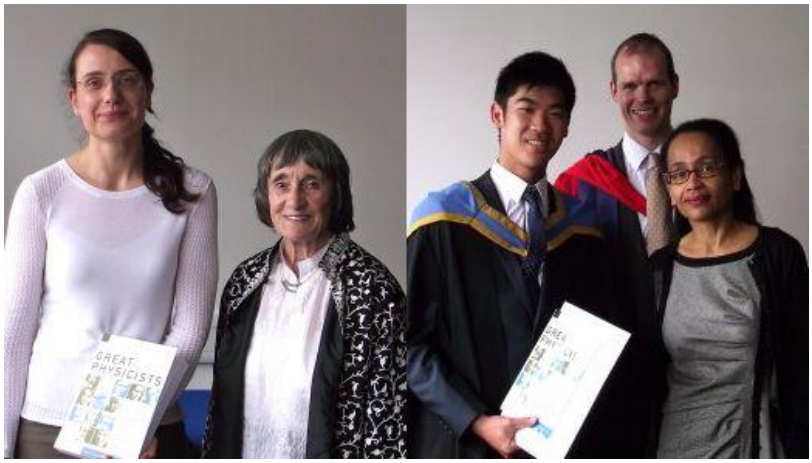


Fig 3a.ii. Prizes being awarded to high achieving postgraduate (left) and undergraduate (right) students in 2013, by benefactors Helen Stern (left) and Edelweiss Thornley (right).

[636 words]

b) 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

(i) ***Numbers of males and females on access or foundation courses*** *– comment on the data and describe any initiatives taken to attract women to the courses.*

The University runs a Summer School in the months prior to students taking up places, mainly for those intending to study Science and Engineering. Classes are available in Mathematics and Science subjects. Priority for places is given to those from schools participating in the Focus West programme[6] and those for whom attendance is a condition of their UCAS offer. Places are then allocated on a first come first served basis. Table 3b.i summarises the gender balance of those attending the Summer School.

[6]http://www.focuswest.org.uk/ FOCUS West's mission is to support an increase in pupils progressing to HE from the 30 secondary schools with the lowest progression rates in the West of Scotland

Table 3b.i

Summer School Numbers and Percentages				
Academic Year	Gender	Summer School attendance and percentages		
		Quantity	%age	%err
2009	F	20	29.9	5.6
	M	47	70.1	
	Total	67	100	
2010	F	14	28.0	6.3
	M	36	72.0	
	Total	50	100	
2011	F	15	26.8	5.9
	M	41	73.2	
	Total	56	100	
2012	F	16	33.3	6.8
	M	32	66.7	
	Total	48	100	

The percentage of female participants has remained constant at around 30% for the last 4 years. We will continue to monitor the percentage of females and look to increase it (**Action 1.1**).

[114 words]

Action 1.1	Monitor participation in the Summer School, in particular the percentage of female students

(ii) ***Undergraduate male and female numbers*** *– 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 impact to date. Comment upon any plans for the future.*

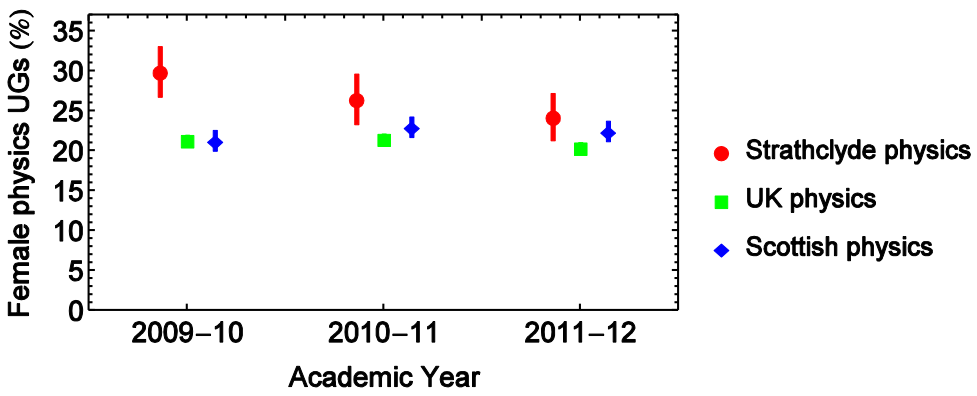
Part-time study is very useful for those with family commitments or with financial/health problems and we encourage its use. This recently benefitted a female undergraduate with a baby who was able to complete her degree by changing to part-time study, aided by the setting of special exams at specific times. Departmental part-time undergraduate numbers are low (an average of 3 students per year over three years), so no statistically significant conclusions can be drawn and the data are not shown. The numbers are even smaller for part-time student numbers on both postgraduate taught courses and research degrees.

Table 3b.ii and Fig. 3b.ii summarise the full-time undergraduate population.

Table 3b.ii

Departmental Undergraduate Numbers (Full Time Courses) with benchmarks										
Academic Year	Gender	Strathclyde Physics			UK Physics			Scotland Physics		
		Qty.	%age	%err	Qty.	%age	%err	Qty.	%age	%err
2009-10	F	74	30.0	2.9	2455	21.4	0.4	325	21.3	1.0
	M	173	70.0		9015	78.6		1200	78.7	
	Total	247	100.0		11470	100.0		1525	100.0	
2010-11	F	61	26.5	2.9	2610	21.6	0.4	380	23.0	1.0
	M	169	73.5		9495	78.4		1270	77.0	
	Total	230	100.0		12105	100.0		1650	100.0	
2011-12	F	61	24.3	2.7	2645	20.5	0.4	370	22.5	1.0
	M	190	75.7		10275	79.5		1275	77.5	
	Total	251	100.0		12920	100.0		1645	100.0	

Figure 3b.ii



The female fraction has dropped slightly, but given the uncertainties associated with the sample size this is statistically consistent with no change and the fraction of females has been consistently above the UK average. There is no room for complacency, and we will continue to monitor the trend carefully and strive to maximise the numbers **(Actions 1.2-1.3)**. As a Department we have been very pro-active in engaging with schools over a number of decades. Actions have included visiting schools to give talks, contributing to equal-opportunity events run by schools, running workshops and career days, and supporting pupils undertaking Advanced Higher projects. Our female staff and postgraduate students have been very active in this area and we are convinced that visibility of female role models is an important factor in attracting young women into Physics.

Recently our efforts have been directed to supporting Glasgow and Scotland wide initiatives, in particular activities run by the Glasgow Science Centre, Glasgow City of Science and the Glasgow Science Festival who have the capability to engaging far greater numbers of school pupils. In view of the slight drop in female undergraduates we are now observing, we will direct our efforts to run focussed Physics activities such as our previously well received Career Workshops in Physics. These will highlight the success of our women graduates in Physics Careers.

[329 words]

Action 1.2	Monitor UG student recruitment by gender against UK and Scottish national average and relevant benchmarking institutions
Action 2.1	Increase recruitment of female students

(iii) ***Postgraduate male and female numbers completing taught courses*** *– 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.*

Our postgraduate taught (PGT) populations are illustrated in Table 3b.iii. The proportion of females has risen steadily from 20-30% although the numbers are so low that no statistically significant conclusions can be drawn. Our numbers are consistent with the national data. Recruitment and performance will be monitored (**Actions 1.4, 1.5**).

Table 3b.iii

Departmental Postgraduate Taught Numbers (Full Time) with benchmarks									
Academic Year	Gender	Strathclyde Physics			UK Physics			Scotland Physics		
		Qty.	%age	%err	Qty.	%age	%err	Qty.	%age	%err
2009-10	F	1	20.0	17.9	185	26.4	1.7	15	23.1	5.2
	M	4	80.0		515	73.6		50	76.9	
	Total	5	100.0		700	100.0		65	100.0	
2010-11	F	2	25.0	15.3	195	28.7	1.7	20	26.7	5.1
	M	6	75.0		485	71.3		55	73.3	
	Total	8	100.0		680	100.0		75	100.0	
2011-12	F	4	36.4	14.5	150	25.6	1.8	10	16.7	4.8
	M	7	63.6		435	74.4		50	83.3	
	Total	11	100.0		585	100.0		60	100.0	

[50 words]

Action 1.4	Monitor PGT and PGR student recruitment by gender against UK and Scottish national average and relevant benchmarking institutions
Action 1.5	Monitor PGT student performance by gender

(iv) ***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.*

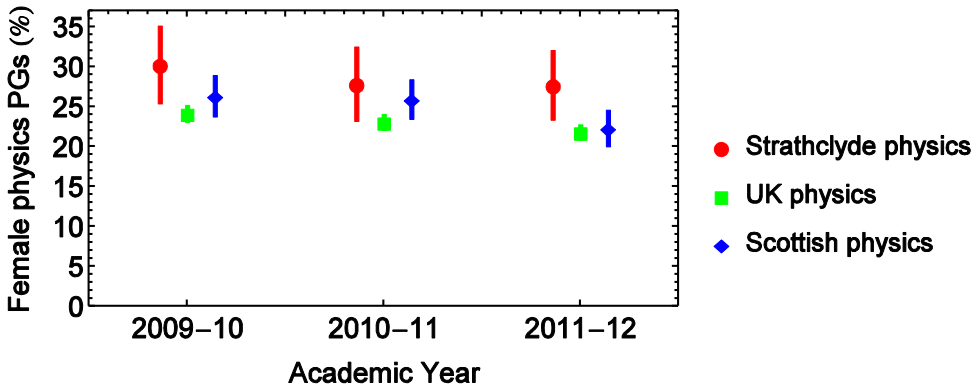
Our departmental postgraduate research degree (PGR) population for the past three years is illustrated in table 3b.iv and figure 3b.iv (**Action 1.4**). The percentage of females on the full-time postgraduate research (PGR) programme has been relatively constant, consistently above the

national averages. Although the statistics are positive we feel that action is needed to promote access to PGR programs. All undergraduate students are presently made aware of the opportunities for postgraduate study through a class in Research Skills and their research projects. We are now requesting that UG advisers contact all their students individually at the beginning of their graduating year to discuss their achievements, and ensure they are aware of opportunities available for postgraduate study. This should ensure that those students hesitant to come forward, which we believe is likely to include an increased proportion of females, will be encouraged to apply **(Action 3.1-3.4)**.

Table 3b.iv

Departmental Postgraduate Numbers (Research degrees) with benchmarks										
Academic Year	Gender	Strathclyde Physics			UK Physics			Scotland Physics		
		Qty.	%age	%err	Qty.	%age	%err	Qty.	%age	%err
2009-10	F	30	30.3	4.6	695	24.2	0.8	95	95.0	2.3
	M	69	69.7		2180	75.8		265	265.0	
	Total	99	100.0		2875	100.0		360	360.0	
2010-11	F	29	27.9	4.4	730	23.1	0.7	100	26.0	2.2
	M	75	72.1		2430	76.9		285	74.0	
	Total	104	100.0		3160	100.0		385	100.0	
2011-12	F	33	27.7	4.1	730	21.9	0.7	95	22.4	2.0
	M	86	72.3		2610	78.1		330	77.6	
	Total	119	100.0		3340	100.0		425	100.0	

Figure 3b.iv



[145 words]

Action 1.4	Monitor PGT and PGR student recruitment by gender against UK and Scottish national average and relevant benchmarking institutions
Action 3.1	Encourage more participation in PG study from female students
Action 3.2	Expand support for PGR Students – RDP Courses, Mentor & Mentee courses Improve postgraduate social space
Action 3.3	Encourage use of part-time and flexible appointments for post-graduate research
Action 3.4	Improve postgraduate social space

(v) ***Ratio of course applications to offers and acceptances by gender for undergraduate, postgraduate taught and 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.*

The following tables, 3b.v-1, 3b.v-2 and 3b.v-3 detail the rate of conversion of course applications to offers and acceptances by gender for undergraduate, PGT and PGR degrees, respectively.

Table 3b.v-1

UCAS Undergraduate Application and Conversion Information														
Year	Gender	BPhys			MPhys			BPwT			Tot			
		Apply	Offer	%age	Apply	Offer	%age	Apply	Offer	%age	Apply	Offer	%age	%err
2010-11	F	23	2	8.7	28	4	14.3	14	3	21.4	65	9	13.8	3.8
	M	115	23	20.0	91	12	13.2	29	3	10.3	235	38	16.2	2.1
	Tot	138	25	18.1	119	16	13.4	43	6	14.0	300	47	15.7	1.8
2011-12	F	35	9	25.7	22	6	27.3	10	2	20.0	67	17	25.4	4.4
	M	156	36	23.1	93	19	20.4	35	8	22.9	284	63	22.2	2.1
	Tot	191	45	23.6	115	25	21.7	45	10	22.2	351	80	22.8	1.9
2012-13	F	43	12	27.9	34	6	17.6	13	3	23.1	90	21	23.3	3.7
	M	203	54	26.6	101	20	19.8	25	1	4.0	329	75	22.8	1.9
	Tot	246	66	26.8	135	26	19.3	38	4	10.5	419	96	22.9	1.7

Table 3b.v-2

PGT Application and Conversion Information					
Year	Gender	MSc (Apply)	MSc (Apply)	%age	%err
2010-11	F	7	2	28.6	13.9
	M	24	6	25.0	7.3
	Tot	31	8	25.8	6.5
2011-12	F	20	4	20.0	7.6
	M	59	7	11.9	3.8
	Tot	79	11	13.9	3.5
2012-13	F	20	2	10.0	6.1
	M	88	6	6.8	2.5
	Tot	108	8	7.4	2.4

*MSc includes full range of MSc courses and PG Diplomas

The relative conversion rate of applications into acceptance offers at all levels consistently shows no statistically significant gender disparity. We will continue to monitor these rates and take action should any concerns develop (**Actions 1.2,1.4**).

Table 3b.v-3

PGR Application and Conversion Information								
Year	Gender	Others			PhD Physics			
		Apply	Offer	%age	Apply	Offer	%age	%err
2010-11	F	2	1	50.0	23	4	17.4	6.8
	M	5	1	20.0	77	19	24.7	4.1
	Tot	7	2	28.6	100	23	23.0	3.5
2011-12	F	3	0	0.0	27	9	33.3	7.2
	M	12	4	33.3	107	25	23.4	3.4
	Tot	15	4	26.7	134	34	25.4	3.1
2012-13	F	2	0	0.0	15	4	26.7	9.4
	M	18	5	27.8	72	20	27.8	4.3
	Tot	20	5	25.0	87	24	27.6	3.9

*Others incorporates MPhil, MRes, EngDPhotonics, EngDOptics and Photonics

[63Words]

Action 1.2	Monitor UG student recruitment by gender against UK and Scottish national average and relevant benchmarking institutions
Action 1.4	Monitor PGT and PGR student recruitment by gender against UK and Scottish national average and relevant benchmarking institutions

(vi) ***Degree classification by gender*** *– comment on any differences in degree attainment between males and females and describe what actions are being taken to address any imbalance.*

Table 3b.vi and Fig. 3b.vi summarise the undergraduate degree classification distribution by gender in Strathclyde physics and UK physics.

Given the small numbers in each classification it is more instructive to aggregate across all years (shaded columns). For the three years with comparative data we are graduating a considerably higher proportion of female (33%) compared with the national average (22% - see Fig 3b.vi) and with our intake (approx. 25%). This shows that we have higher retention for female undergraduates compared to their male counterparts and it is important to see how this impacts on degree classifications. The table shows that we are considerably above the national average for 1st's (+11%), 2.2's (+21%) and 3's (+17%), and comparable to the national average for 2.1's (+2%).

Table 3b.vi

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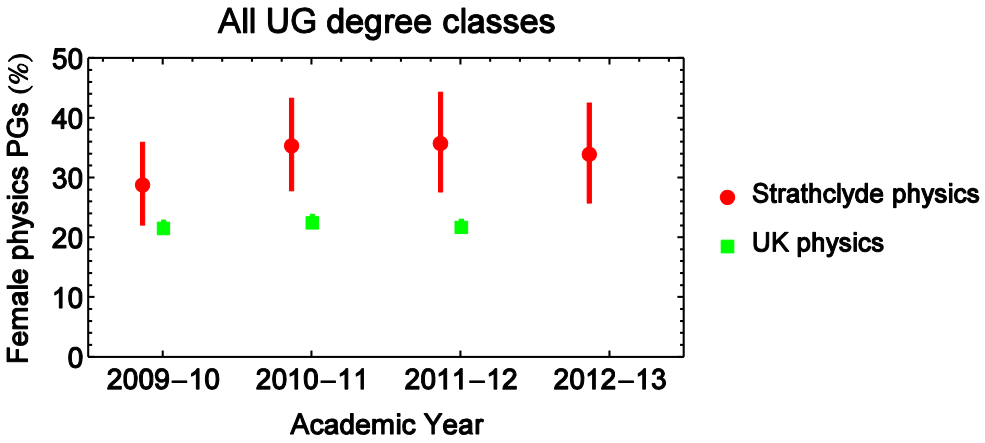
	Final undergraduate degree classification by gender																
	Academic Year		2009-10			2010-11			20011-12			2012-13			3 yr Aggregates		
	Gender		F	M	Tot	F	M	Tot	F	M	Tot	F	M	Tot	**F**	**M**	**Tot**
1st class	Strathclyde physics	Qty.	7	9	16	3	7	10	2	10	12	3	4	7	**12**	**26**	**38**
		%age	43.8	56.3	100	30	70	100	16.7	83.3	100	42.9	57.1	100	**32**	**68**	
		%err	12.4			14.5			10.8			18.7					
	UK physics	Qty.	190	650	840	185	705	890	185	710	895				**560**	**2065**	**2625**
		%age	22.6	77.4	100	20.8	79.2	100	20.7	79.3	100				**21**	**79**	
		%err	1.4			1.4			1.4								
2.1 class	Strathclyde physics	Qty.	3	13	16	4	15	19	5	6	11	3	11	14	**12**	**34**	**46**
		%age	18.8	81.3	100	21.1	78.9	100	45.5	54.5	100	21.4	78.6	100	**26**	**74**	
		%err	9.8			9.4			15			11					
	UK physics	Qty.	230	710	940	235	745	980	235	720	955				**700**	**2175**	**2875**
		%age	24.5	75.5	100	24	76	100	24.6	75.4	100				**24**	**76**	
		%err	1.4			1.4			1.4								
2.2 class	Strathclyde physics	Qty.	4	9	13	6	4	10	6	7	13	6	5	11	**16**	**20**	**36**
		%age	30.8	69.2	100	60	40	100	46.2	53.8	100	54.5	45.5	100	**44**	**56**	
		%err	12.8			15.5			13.8			15					
	UK physics	Qty.	115	465	580	150	440	590	140	490	630				**405**	**1395**	**1800**
		%age	19.8	80.2	100	25.4	74.6	100	22.2	77.8	100				**23**	**78**	
		%err	1.7			1.8			1.7								
3rd class	Strathclyde physics	Qty.	0	3	3	2	1	3	0	0	0	0	3	3	**2**	**4**	**6**
		%age	0	100	100	66.7	33.3	100				0	100	100	**33**	**67**	
		%err				27.2											
	UK physics	Qty.	25	170	195	35	150	185	30	160	190				**90**	**480**	**570**
		%age	12.8	87.2	100	18.9	81.1	100	15.8	84.2	100				**16**	**84**	
		%err	2.4			2.9			2.6								
All degree classes	Strathclyde physics	Qty.	14	34	48	15	27	42	13	23	36	12	23	35	**42**	**84**	**126**
		%age	29.2	70.8	100	35.7	64.3	100	36.1	63.9	100	34.3	65.7	100	**33**	**67**	
		%err	6.6			7.4			8			8					
	UK physics	Qty.	560	1995	2555	605	2040	2645	590	2080	2670				**1755**	**6115**	**7870**
		%age	21.9	78.1	100	22.9	77.1	100	22.1	77.9	100				**22**	**78**	
		%err	0.8			0.8			0.8								

Figure 3b.vi



The fractions of female students graduating at Strathclyde Physics are consistently above national averages, but we will continue to monitor them (**Action 1.3**) and focus a number of actions on encouraging female students to reach their full potential (**Actions 2.2-2.4**). It is most important to generate a strong "pipeline" of female physicists progressing from one stage to the next. For example, an enhanced retention rate of females and increased percentage of 1st class degrees should have a positive impact on the number of females continuing their career at PhD level.

Action 1.3	Monitor UG student performance by gender
Action 2.2	Maintain support and integration for UG students
Action 2.3	Implement undergraduate student to student mentoring scheme
Action 2.4	Monitor effectiveness of UG student mentoring scheme

[215 words]

Staff data

(vii) ***Female:male ratio of academic staff and research staff*** *– researcher, lecturer, senior lecturer, reader, professor (or equivalent). comment on any differences in numbers between males and females and say what action is being taken to address any underrepresentation at particular grades/levels*

Research Staff

The percentage of female researchers has increased from 7 to 19% over the last 3 years, see Table 3b.vii. However the proportion of female research staff is still not good in comparison to the UK average of (19.3%[7]) (**Action 1.6**). We have instigated a number of actions both within the Department and across the University to encourage more female research students to take up postdoctoral research positions, attract external female researchers and retain existing female research staff (**Actions 4.1-5.1**). Our focus group has identified that flexible working (job-shares, part-time, etc.) would make a research career more attractive to women and we will look for

[7] HESA Statistics 2012

opportunities to promote these (**Action 4.5**). More Departmental social activities are being run to encourage cross-departmental interaction and networking of staff and postgraduate students; female researchers are being particularly encouraged to take advantage of the University mentoring scheme, using targeted emails and can request a female mentor; events run by SUPA and Strathclyde University's Researcher Development Programme[8] (RDP) provide personal development training and opportunities for networking. All female staff and students are made aware of events and resources available through the Scottish Resource Centre for Women in SET.

Academic Staff

There are presently 3 members of female academic staff in the Department (9%) (Table 3b.vii), which is lower than the UK average of 12.7%[5]. This includes a new female lecturer, who had earlier taken an 8-year career break to raise a family before returning to Strathclyde part-time (50%) with a Daphne Jackson research fellowship. A number of female academics from other parts of the University contribute to the academic life of the Department. For example, Prof. Gail McConnell of the Centre of Biophotonics and Dr Jennifer Hastie of the Institute of Photonics (both former undergraduate and postgraduate students in the Physics Department) teach and supervise. All new academic staff members are allocated a probationary adviser to guide, support and encourage the probationer throughout the period of their probation – female staff may request a women probationary adviser. In addition the activities of our female staff are being highlighted by news stories[9] and videos[10] on our Departmental and University webpages – this increases the profile of the women academics themselves and should help attract female researchers to apply for academic posts when available (**Actions 4.1-5.1**).

Table 3b.vii

Academic and Research Staff – Combined (open ended and fixed term)											
Year Ending	Gender	Professor (AS01)	%	Reader (AK10)	%	Senior Lecturer (AK09)	%	Lecturer AK08	%	Researcher (AR79-RS08)	%
2010	F	0	**0**	1	**14.3**	0	**0**	2	**22.2**	3	7.3
	M	13	**100**	6	**85.7**	4	**100**	7	**77.8**	38	92.7
	Total	13		7		4		9		41	
2011	F	0	**0**	1	**14.3**	0	**0**	2	**22.2**	7	15.9
	M	14	**100**	6	**85.7**	5	**100**	7	**77.8**	37	84.1
	Total	14		7		5		9		44	
2012	F	0	**0**	1	**16.7**	0	**0**	1	**20**	8	18.6
	M	15	**100**	5	**83.3**	7	**100**	4	**80**	35	81.4
	Total	15		6		7		5		43	

[379 words]

Action 1.6	Monitor staff data by gender, including distribution of academic and research staff, analysis of key transition points, etc.
Action 4.1	Develop Department good practice guidelines setting out good practices for attracting and recruiting staff (building on those developed by our HR Team).

[8] http://www.strath.ac.uk/rdp/
[9] e.g., http://www.strath.ac.uk/press/newsreleases/headline_727847_en.html
[10] e.g., http://www.youtube.com/watch?v=iw5qDkhTrb4

Action 4.2	Monitor and ensure best practice with respect to gender balance on recruitment panel
Action 4.3	Have the wording in our template adverts checked for gender bias
Action 4.4	Continue to support Early Career Researchers, especially females
Action 4.5	Encourage use of part-time and flexible appointments for research and academic positions
Action 5.1	Raise profile of female students and staff

(viii) ***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.*

Table 3b.viii shows the turnover by grade and gender. One male Professor, one female senior lecturer and a male lecturer left in lateral moves to other institutions, two for family reasons. Research staff tend to leave when contracts expire and we feel there is nothing to infer from all six leavers being male. The Department will continue to monitor staff turnover with respect to gender balance (**Action 1.6**).

[68 words]

Table 3b.viii

Turnover by grade and gender of Academic and Research Staff											
Year Ending	Gender	Professor (AS01)	%	Reader (AK10)	%	Sen Lecturer (AK09)	%	Lecturer AK08	%	Researcher (AR79-RS08)	%
2009-10	F	0	0	0	0	0	0	0	0	0	0
	M	0	0	0	0	0	0	0	0	2	100
	Total	0		0		0		0		2	
2010-11	F	0	0	0	0	0	0	0	0	0	0
	M	1	100	0	0	0	0	0	0	3	100
	Total	1		0		0		0		3	
2011-12	F	0	0	0	0	1	100	0	0	0	0
	M	0	0	0	0	0	0	1	100	6	100
	Total	0		0		1		1		6	

Action 1.6	Monitor staff data by gender, including distribution of academic and research staff, analysis of key transition points, recruitment, progression, retention, etc.

[Section Total 1999 words]

Supporting and advancing women's careers: maximum 5000 words

Key career transition points

a) 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.

*(i) **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.*

When new positions became available the HoD and members of staff actively seek talented applicants, working closely with our colleagues in HR to ensure that we follow practices that promote equal opportunities. As well as advertising in print and online full use is made of networks and personal contacts. We follow University policy and guidance in wording for advertisements, job descriptions, and further particulars. Recommendations to improve recruitment practices are being pursued through implementation of the University's Bronze Award Action Plan. We will also develop departmental good practice guidelines (building on those developed by the Strathclyde HR Team[11] for all staff) setting out good practices for attracting and recruiting staff **(Action 4.1 & 4.5)**. We will continue to showcase the successes of our female staff on our website **(Action 5.1)**.

Since 2009/10 there have been interviews for 11 academic and research posts (Tables 4a.i and 4.a.ii) resulting in the appointment of 3 females (27%). The University has a clear policy on the constitution of the interview panels, ensuring an appropriate balance of seniority, specialist expertise and broader input. There has been female representation on 70% of our panels. **Action 4.2** will monitor this statistic and work to raise it to 90%. Given our current low number of female academics we will look to inclusion of female representatives from HR and other relevant Departments to achieve this. Our support for the career development and promotion of staff will ensure a growing pool of potential panellists (**Actions 4.1-4.4**).

Table 4a.i

Job applications by gender and grade											
Year Ending	Gender	Professor (AS01)	%	Reader (AK10)	%	Sen Lecturer (AK09)	%	Lecturer AK08	%	Researcher (AR79-RS08)	%
2009-10	F	0	0	0	0	0	0	0	0	6	11.5
	M	13	100	0	0	0	0	0	0	46	88.5
	Total	13		0		0		0		52	
2010-11	F	0	0	0	0	1	10	0	0	20	28.6
	M	12	100	0	0	9	90	0	0	50	71.4
	Total	12		0		10		0		70	
2011-12	F	0	0	0	0	0	0	13	16.7	1	14.3
	M	0	0	0	0	0	0	65	83.3	6	85.7
	Total	0		0		0		78		7	

[11] http://www.strath.ac.uk/hr/recruitingatstrathclyde/

Table 4a.i_2

Job appointments by gender and grade											
Year Ending	Gender	Professor (AS01)	%	Reader (AK10)	%	Sen Lecturer (AK09)	%	Lecturer AK08	%	Researcher (AR79-RS08)	%
2009-10	F	0	0	0	0	0	0	0	0	0	0
	M	0	0	0	0	0	0	0	0	1	100
	Total	0		0		0		0		1	
2010-11	F	0	0	0	0	0	0	0	0	3	60
	M	1	100	0	0	0	0	0	0	2	40
	Total	1		0		0		0		5	
2011-12	F	0	0	0	0	0	0	0		0	0
	M	1	100	0	0	1	100	0	0	2	100
	Total	1		0		1		0		2	

[246 words]

Action 4.1	Develop Department good practice guidelines setting out good practices for attracting and recruiting staff (building on those developed by our HR Team).
Action 4.2	Monitor and ensure best practice with respect to gender balance on recruitment panels
Action 4.3	Have the wording in our template adverts checked for gender bias
Action 4.4	Continue to support Early Career Researchers, especially females
Action 4.5	Encourage use of part-time and flexible appointments for research and academic positions
Action 5.1	Raise profile of female students and staff

(ii) ***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.*

The Professorial Advisory Group (PAG), comprising all our Professors, takes on responsibility for the first stage of the promotion process for Academic staff. It operates a fair and equal approach, with a discussion of the prospects for development and/or promotion of every member of non-Professorial academic staff in turn. Feedback is then provided where possible, both in situations where a promotion case is recommended and where there is advice on how to strengthen a case for a future round. We would be very pleased to see female representation on PAG, which we aim to address by developing the "pipeline" of female staff through all levels. The second and third stages involve Faculty and University panels, where care is taken to ensure female representation. University guidelines on the criteria and process for Academic Promotion have recently been updated and clarified in a very positive way. **Action 4.6** is to produce a Departmental guide to make clear how these guidelines are implemented within the Department and Faculty.

For research, technical and administrative staff the potential for a strong promotion case is generally identified by the line manager. The annual review procedure (Accountability and Development Review) is an important mechanism for. The review meeting provides a one-to-one discussion of when a case ready, with the HoD brought in by his/her review of the completed paperwork. Individuals can also put themselves forward to be considered for promotion. Non-academic staff are offered assistance in preparing promotion cases from an experienced colleague. For Academic staff information arising from the review process is brought to the PAG, either by the Head of Division or the Reviewer.

We recognise that there may be a reluctance of certain staff, more likely to include female colleagues, to put themselves forward for promotion. We will continue to monitor the progress of all staff and approach those who have a strong case for promotion, to ensure that this does not lead to inequality in the process **(Action 4.7).**

Table 4a.ii

Applications for promotion and success rates by gender and grade (does not include unsuccessful)											
Year	Gender	Prof	%	Reader	%	Sen Lecturer	%	Lecturer	%	Research	%
2009-2010	F	0	0	0	0	0	0	0	0	0	0
	M	0	0	0	0	0	0	0	0	1	100
	Total	0		0		0		0		1	
2010-2011	F	0	0	0	0	0	0	0	0	3	60
	M	1	100	1	100	0	0	1	100	2	40
	Total	1		1		0		1		5	
2011-2012	F	0	0	0	0	1	25	0	0	0	0
	M	0	0	0	0	3	75	0	0	1	100
	Total	0		0		4		0		1	

Table 4a.ii records successful promotion cases for academics and researchers for the three years starting 2009. The subsequent year saw a further two promotions to Senior Lecturer, including one female. Due to the small numbers it is constructive to consider the academic promotions in aggregate. Of the nine academic promotions since 2009, two (22%) have been female. These have all been on merit but we note that the percentage is considerably higher than the proportion of female staff (9%).

Action 4.6	Show clear and up-to-date promotion criteria to demonstrate fairness
Action 4.7	Improve promotion support

[405 words]

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

(i) ***Recruitment of staff*** *– comment on how the department's recruitment processes ensure that female candidates are attracted to apply, and how the department ensures its short listing, selection processes and criteria comply with the university's equal opportunities policies*

The process is summarised above. We are aware that certain wording in advertisements can disproportionately discourage female applicants[12] and take care in our wording in light of this. We will have the wording in our template adverts checked more formally by suitably trained people from outside the Department **(Action 4.3).** In order to attract applications from female candidates, female staff and students are highly visible in our promotional materials; including the website, leaflets, stands, etc. This promotes our female role models, and also promotes the Department as a female-friendly workplace **(Actions 2.1, 5.1)**. University policy requires all Chairs of recruitment panels to complete Equality and Diversity training. Shortlisting is done strictly on the basis of essential and desirable criteria; the HR team oversees the process and gathers written documentation on reasons for non-shortlisting. HR has prepared a guidance document for good practice in recruitment for use by all Departments[8] and provides one-to-one advice and support to staff making appointments.

Research staff are appointed through (i) funding awarded to permanent staff in the Department; (ii) by researchers contributing to the writing of research grants and (iii) by researchers obtaining their own funding through fellowships. Through line managers, the mentoring programme, our postgraduate-staff student committee and website we will ensure that all our postgraduate students and research staff are equally aware of all the opportunities available to obtain research positions **(Action 4.4)**. We will monitor the application and appointment statistics to ensure there is no gender bias **[Action 1.5]**.

Action 2.1	Develop Department good practice guidelines setting out good practices for attracting and recruiting staff (building on those developed by our HR Team).
Action 4.3	Have the wording in our template adverts checked for gender bias
Action 4.4	Continue to support Early Career Researchers, especially females
Action 5.1	Raise profile of female students and staff

[247 words]

(ii) ***Support for staff at key career transition points*** *– having identified key areas of attrition of female staff in the department, 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.*

The critical drop-off point of female researchers within the Department is from PhD to post-doctoral level (from around 28% to 14%). The number of female academic staff is also low (9%). Maintaining a strong "pipeline" of female staff from one level to the next is a key issue to address.

[12]July 2011 report by the National STEM Programme

We wish to improve the number of females successfully transiting each point and have instigated a number of key actions (see **Actions 4.1-4.7**) both within the Department and across the University to address this. In particular our Equality and Diversity Team (now PSAT) recommended that the counselling scheme in place for postgraduate students should be extended to research staff. A University wide mentoring scheme[13] has recently been introduced and female researchers are being particularly encouraged to take advantage of this by use of targeted emails – female researchers are able to request a female mentor. Role models have been shown to be important and we are therefore showcasing the successes of our female staff and students using webpages, podcasts and articles in appropriate publications **(Action 5.1).** There are a wide range of personal development, training and networking opportunities available to postgraduates, research and academic staff **(Action 5.2-5.3)**:

- Counselling / mentoring (see above).

- A number of Women Networks exist, or are in the process of being set up, to provide networking opportunities and support for women across Science and Engineering at Strathclyde and across Scotland. For example the *Scottish circle of the Women's Engineering Society*[14] holds regular events such as dinners, conferences, and family get-togethers. *Interconnect* is a network for women studying science, engineering, technology and the built environment in Scotland. The project was set up by the *Scottish Resource Centre for women in SET*, in partnership with the National Union of Students (NUS), in 2009[15]. *Interconnect: University of Strathclyde*[16] has 166 members including students from Physics. Other networking events for women at all levels are being developed across the university and will be promoted.

- The *Scottish Universities Physics Alliance (SUPA)* supports researchers by providing funding for postgraduate, postdoctoral and early career researcher short term visits; it provides networking opportunities through meetings and seminars.

- Strathclyde's *Researcher Development Programme (RDP)* provides postgraduates and early career researchers with a diverse range of courses and activities to develop their careers; ranging from writing and presenting research, to engaging the public to mutual support networks to help with the writing of research grants. Courses run by the *Scottish Resource Centre* are actively promoted. The RDP made a significant contribution to the running of *'Best of the West': Meet the Ladies*[17] held at Glasgow's City Chambers to celebrate the achievements of women working in STEMM subjects.

- The Organisational Staff Development Unit (OSDU) supports Researcher Development in the areas of Coaching, Mentoring, Leadership, and Self-Awareness through the *Strathclyde Programme in Research and Leadership (SPIRAL)*[18] programme. Its key aim is to develop and strengthen leadership across research and knowledge exchange. Participants can select their own mix of activities (including master classes for professors and senior lecturers) to meet their own needs and career stages.

[13] http://www.strath.ac.uk/hr/mentoringstrathclyde/
[14] http://www.wes.org.uk/scottish
[15] http://www.napier.ac.uk/research/centresandprojects/src/whatwedo/Pages/Interconnect-student-network.aspx
[16] http://www.interconnect.org.uk/groups-and-events/group/20/interconnect:-university-of-strathclyde
[17] http://www.glasgowsciencefestival.org.uk/events/sciencefestival/events/adult/24-bestofthewest/
[18] http://www.strath.ac.uk/hr/spiral/

- Coaching is a powerful development intervention which can help accelerate performance at various researcher career stages. We provide access to experienced and qualified coaches with a variety of backgrounds, experience and professional qualifications. Coaching is specifically advertised to Women in SET throughout the year.

- There are also a number of researcher driven activities which provide training and networking opportunities for postgraduate students, research staff and academic staff. For example *GIST (Glasgow Insight into Science and Technology)*[19] reports on science and technology news, with input from female Physicists at Strathclyde. *Bright Club*[20] provides researchers with the opportunity to do "stand-up" based on their own research. Women regularly participate, including one of our PhD students. These initiatives are supported by the University through promotion of activities and by provision of seed funding.

The responses to our researcher questionnaire showed that female research staff had enough support from the department and sufficient opportunities for networking. The uptake of RDP and SPIRAL courses is good, with 49% of participants being female. The Strathclyde results from within the CROS (Careers in Research Online) survey 2013[21] have demonstrated that our researcher development initiatives are having significant impact. 90% of researchers agreed that they were encouraged to engage in personal and career development, an increasing trend and a significant improvement on 2009 (70%) and nationally in 2013 (74%).

Action 4.1	Develop Department good practice guidelines setting out good practices for attracting and recruiting staff (building on those developed by our HR Team).
Action 4.2	Monitor and ensure best practice with respect to gender balance on recruitment panels
Action 4.3	Have the wording in our template adverts checked for gender bias
Action 4.4	Continue to support Early Career Researchers, especially females
Action 4.5	Encourage use of part-time and flexible appointments for research and academic positions
Action 4.6	Show clear and up-to-date promotion criteria to demonstrate fairness
Action 4.7	Improve promotion support
Action 5.1	Raise profile of female students and staff
Action 5.2	Promotion of specific courses -Mentoring, Supervision of PG students, Recruitment, Coaching, Leadership Development
Action 5.3	Promote and enhance networking events for women

[727 words]

[19] http://the-gist.org/
[20] http://brightclub.wordpress.com/2012/03/08/bright-club-glasgow/
[21] http://www.vitae.ac.uk/policy-practice/143071/Careers-in-Research-Online-Survey-CROS.html
http://www.strath.ac.uk/hr/learninganddevelopment/researchstaffdevelopment/
careersinresearchonlinesurveycros2013/

Career development

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

   (i) ***Promotion and career development*** *– comment on the appraisal and career development process, and promotion criteria and whether these take into consideration responsibilities for teaching, research, administration, pastoral work and outreach work; is quality of work emphasised over quantity of work?*

Annual Development Review

The Accountability and Development Review (ADR) Process[22] provides a critical opportunity for all staff to gain constructive and supportive feedback on their performance. ADR discussions take place on an annual basis between each staff member and their line manager or an appropriate nominee. The focus of this discussion is to review performance and learning and development over the previous calendar year, to plan for the coming year by setting objectives which align with the University's Strategic Plan and to identify learning and development activities that will support good performance and the achievement of objectives.

The learning and development plan of the ADR aims to:

- Enable maximisation of personal and professional potential
- Contribute to both work and personal development
- Support and encourage confidence and capability in a changing environment
- Prepare staff for changes in roles and responsibility
- Enhance individual and organisational performance
- Ensure alignment with the University's Strategic Objectives

The Department has had a near 100% completion rate for the ADR process in the last two years. We have benefitted from female Reviewers and also some flexibility allowed by the University, which allowed one female staff member to submit forms later than normal due to unexpected family issues.

Probation and Promotion

The University has clear criteria for successfully completing probation[23]. All probationers are allocated an adviser to guide, support and encourage them throughout their probation. Staff on probation are allocated a partial teaching load to help establish their research. This is enforced by the Faculty Review Panel.

Circumstances related to equal opportunities limiting performance during the probationary period are formally taken into account. Examples in the guidelines include absence due to maternity/parental/adoption leave and issues relating to pregnant and breast feeding women.

[22] http://www.strath.ac.uk/hr/learninganddevelopment/adr/
[23] http://www.strath.ac.uk/hr/policiesandprocedures/academicprobationaryperiodinformation/

Indicators of requirements for promotion are published on the University website[24]. Both ADR and promotion process take account of performance in research, teaching, knowledge exchange and citizenship (including pastoral and outreach work). The indicators also state that "In considering promotions, the University is committed to equal opportunities and opposes unfair discrimination on the grounds of colour, race, nationality, ethnic or national origin, sex, disability, age, religious belief, sexual orientation or marital status." **Actions 4.6 and 4.7** relate to improving our promotion process.

Action 4.6	Show clear and up-to-date promotion criteria to demonstrate fairness
Action 4.7	Improve promotion support

[368 words]

(ii) ***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?*

Researcher Induction Process

The research induction framework[25] is a structured induction plan that supports research staff in the early period of their employment at Strathclyde; helping them settle into their new role and responsibilities, giving them key information and pointing them in the direction of sources of support. Research and academic staff are provided with an Induction Pack upon acceptance of their appointment, include a wide variety of information covering such as car parking facilities, library facilities, security and sports facilities. The pack also includes details of equality & diversity training which incorporates gender equality, and information on good employment practices such as Occupational Health and Safety, HR Procedures and the Flexible Working Policy. In Physics a member of support staff takes the responsibility for induction of all new staff, getting to know them, monitoring their progress and providing additional Department-specific information. We have decided to add completion of the University's equality & diversity questionnaire to the checklist of required actions **(Action 4.9)**. The University invites researchers to an institutional Research Staff Specific Induction Seminar.

Action 4.9	Add University's equality & diversity questionnaire to the checklist of items to be completed by new staff

[175 words]

[24] http://www.strath.ac.uk/hr/policiesandprocedures/promotionacademicprofessionalstaff/
[25] http://www.strath.ac.uk/staffinduction/researcher/

(iii) ***Support for female students*** *– describe the support (formal and informal) provided for female students to enable them to make the transition to a sustainable academic 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 department.*

The Department aims to provide a friendly, supportive and dynamic environment to all its staff and students. All undergraduates have an adviser who follows their progress and provides advice and support as required. Postgraduates have first and second supervisor and a counsellor to look after them. Female students may request a female counsellor. We believe it is this ethos of care which has contributed to the percentage of female undergraduate and postgraduates lying above the national average (this is supported by responses in student surveys). We are continually striving to improve our support to our students, especially females (**Actions 2.2-3.2**). The Department has a very active Physics Society[26] whose aims are to organise social and networking events and raise awareness of physics events and conferences. The society has recently developed student-student mentoring, and is pro-actively providing opportunities for 1st , 2nd and 3rd year students to gain advice from 4th and 5th year students.

SUPA provides postgraduate students with the opportunity for networking and personal development through its Graduate School, where students have the chance to participate in courses with students from other universities. Strathclyde's Researcher Development Programme, as described previously, also provides PhD students many opportunities. We have a postgraduate staff-student committee which provides a forum for postgraduate students to raise any issues with the Department. It also organises staff-student socials.

The Student Community for Optics and Photonics Engineering (SCOPE)[27] founded in 2008 as a student chapter of the Optical Society (OSA), encompasses physics and engineering (mainly PhD) students from the Universities of Strathclyde and Glasgow. It has an active core of 10-15 out of 30-40 members, with a very good (~50%) female representation in the committee. SCOPE provides opportunities for networking not only among its student members but also for research and academic staff. While set up for researchers whose research is in the area of optics and photonics, it welcomes members from all sections of the Department. Scope organises outreach activities, networking events, company visits and social events. Outreach activities include participation to the Family Days at the Glasgow Science festival, visits to schools and public science displays around Scotland. Major networking events are the International OSA Network of Students (IONS) conferences (in IONS Paris: 3 female members out of 7) and the OSA Leadership conferences (SCOPE has been represented by female committee members for the last two years).

Recently SCOPE, with a contribution from the Department, supported one of our female researchers to take part in 'Exploring Mars, Discovering Earth' a campaign of networked Mars analog demonstrations to celebrate World Space Week (WSW) 2013**.** She was a member of the Mission Control Team who co-ordinated activities from the Mission Control Center, Austrian Space Forum**,** Innsbruck. On her return to Strathclyde she gave a SCOPE seminar.

[459 words]

[26] http://phys.strath.ac.uk/society/
[27] http://scope.photonics.ac.uk/

Action 2.2	Maintain support and integration for UG students
Action 2.3	Implement undergraduate student to student mentoring scheme
Action 2.4	Monitor effectiveness of UG student mentoring scheme
Action 3.1	Encourage more participation in PG study from female students
Action 3.2	Expand support for PGR Students – RDP Courses, Mentor & Mentee courses Improve postgraduate social space

Organisation and culture

a) *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.*

   (i) ***Male and female representation on committees*** *– provide a breakdown by committee and explain any differences between male and female representation. Explain how potential members are identified.*

The following committees have oversight of the activities in the Department: Departmental (DC); Research (DRC), Teaching (DTC), Recruitment (RC); Executive (DEC); Professorial Advisory Group (PAG); Undergraduate Staff-Student (USSC); Postgraduate Staff-Student (PGSSC); Safety; Infrastructure (Infra) and PSAT.

Their membership is summarised below. Not all committees have both male and female representation. If we insisted on this for all committees the result would be 'committee overload' for our female staff, which would be counter-productive. Instead, as discussed in the later section on decision making committees, all staff are encouraged to take on such roles which match their strengths and fit with their existing work-load and responsibilities. Some of the committees include all those in a particular category (for example all academic staff are on the DC, all Professors on the PAG) whereas others are composed of people with specific responsibilities (e.g. the Directors of Teaching, Research, Knowledge Exchange and Infrastructure and HoD make up the DEC). Given the small numbers of female staff at the higher grades, work to improve the pipeline of female staff progressing through each of the transition points is viewed as the best way to increase female representation on committees. We will continue to monitor and evaluate the composition of our committees **[Action 6.1]**.

In the recent past a situation had developed where one particular female staff member was overloaded with committee representation and responsibilities. Steps were taken to address this and subsequently this staff member was able to lead a successful major grant application to the Research Council, complete a series of significant journal papers as well as continuing with high profile teaching responsibilities. All of these serve as excellent examples for other female staff members, and prospective ones.

Table 4b.i

Male and female representation on committees																							
Year	Gender	Prof	%	DEC	%	DC	%	DRC	%	DTC		RC	%	USSC	%	PGSSC	%	Safety	%	Infra	%	PSAT/ EDT	%
2010-11	F	0	0	0	0	4	10	0	0	0	0	3	37.5	4	26.7	1	25	1	7.7	1	20	4	66.7
	M	15	100	5	100	36	90	8	100	6	100	5	62.5	11	73.3	3	75	12	92.3	4	80	2	33.3
2011-12	F	0	0	0	0	4	9.7	0	0	0	0	2	28.6	4	26.7	1	25	0	0	1	20	4	66.7
	M	16	100	5	100	37	90.3	8	100	6	100	5	71.4	11	73.3	3	75	13	100	4	80	2	33.3
2012-13	F	0	0	0	0	4	9.7	1	11	0	0	2	28.6	4	26.7	2	40	2	16.7	1	25	6	66.7
	M	17	100	5	100	37	90.3	8	89	6	100	5	71.4	11	73.3	3	60	10	83.3	3	75	3	33.3

[282 words]

Action 6.1	Ensure a balance of representation of women and men on decision making committees and document information

(ii) ***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.*

The University publishes a policy statement on the use of open-ended and fixed-term employment contracts[28], which has been collectively agreed with the campus trade unions. The Department's approach follows this framework.

All academic staff are currently on open-ended contracts except for one case (male) of a partial re-engagement after retirement. Typically research staff are on fixed-term contracts if they have been employed as a researcher for less than 4 years. At the contract renewal that takes them beyond the four year point they are transferred to continuing contracts unless there is objective justification for not doing so (for example, minimal likelihood of renewed funding for a particular research area or a specific time limit for their project). The case for objective justification is scrutinised and approved by the Head of Department, the Executive Dean and an HR manager, with a particular care to ensure there is no inequality. The proportion of female research staff on open-ended contracts has increased from 2009/10 to date and there is no sign of gender bias, although the total numbers are small. We will continue to monitor this **[Action 1.6]**.

Table 4b.ii_1

Academic and Research Staff – Fixed-Term											
Year Ending	Gender	Professor (AS01)	%	Reader (AK10)	%	Sen Lecturer (AK09)	%	Lecturer AK08	%	Researcher (AR79-RS08)	%
2009	F	0	0	0	0	0	0	0	0	1	4
	M	0	0	0	0	0	0	0	0	24	96
	Total	0		0		0		0		25	
2010	F	0	0	0	0	0	0	0	0	1	4
	M	0	0	0	0	0	0	0	0	23	96

[28] http://www.strath.ac.uk/media/ps/humanresources/policies/FixedTermOpenEndedContractsUsePolicy.pdf

	Total	0		0		0		0		24	
2011	F	0	0	0	0	0	0	0	0	5	20
	M	0	0	0	0	0	0	0	0	25	80
	Total	0		0		0		0		30	
2012	F	0	0	0	0	0	0	0	0	6	21
	M	1	100	0	0	0	0	0	0	22	79
	Total	1		0		0		0		29	

Table 4b.ii_2

Academic and Research Staff – Open-Ended											
Year Ending	Gender	Professor (AS01)	%	Reader (AK10)	%	Sen Lecturer (AK09)	%	Lecturer AK08	%	Researcher (AR79-RS08)	%
2009	F	0	0	1	12.5	0	0	2	25	2	11.1
	M	13	100	7	87.5	4	100	6	75	16	88.9
	Total	13		8		4		8		18	
2010	F	0	0	1	14.3	0	0	2	22.2	2	11.8
	M	13	100	6	85.7	4	100	7	77.8	15	88.2
	Total	13		7		4		9		17	
2011	F	0	0	1	14.3	0	0	2	22.2	2	14.3
	M	14	100	6	85.7	5	100	7	77.8	12	85.7
	Total	14		7		5		9		14	
2012	F	0	0	1	20	0	0	1	20	2	13.3
	M	14	100	5	80	7	100	4	80	13	86.7
	Total	14		0		7		5		15	

Action 1.6	Monitor staff data by gender, including distribution of academic and research staff, analysis of key transition points, recruitment, progression, retention, etc.

[186 words]

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

(i) ***Representation on decision-making committees*** *– 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 department? How is the issue of 'committee overload' addressed where there are small numbers of female staff?*

The decision-making committee structure in the Department is illustrated in Fig 4a.i, below - the key decision making committee being the Departmental Committee. We aim to run a system that is effective, efficient and transparent as well as flexible. A key guiding principal is to have equality and diversity considerations fully embedded in the committees through wide understanding and appreciation of the issues, rather than requiring representation from specific groups. The Departmental completion rate for the University Equality and Diversity module is high (more than double the average across the University) and we will work to raise this even higher, for example by ensuring completion by all new staff **[Action 4.8, 4.9]**.

As discussed above the low proportion of female staff can make it counter-productive to require female representation on all committees and our aim is that they serve on an appropriate number of committees that best use their skills and efforts and which will advance their careers. In others we rely on ensuring appropriate awareness of equality issues among all members. Given the small numbers of female staff at the higher grades, work to improve the pipeline of female staff progressing through each of the transition points is viewed as the best way to increase female representation on committees. We will continue to monitor and evaluate the composition of our committees **[Action 6.1]**.

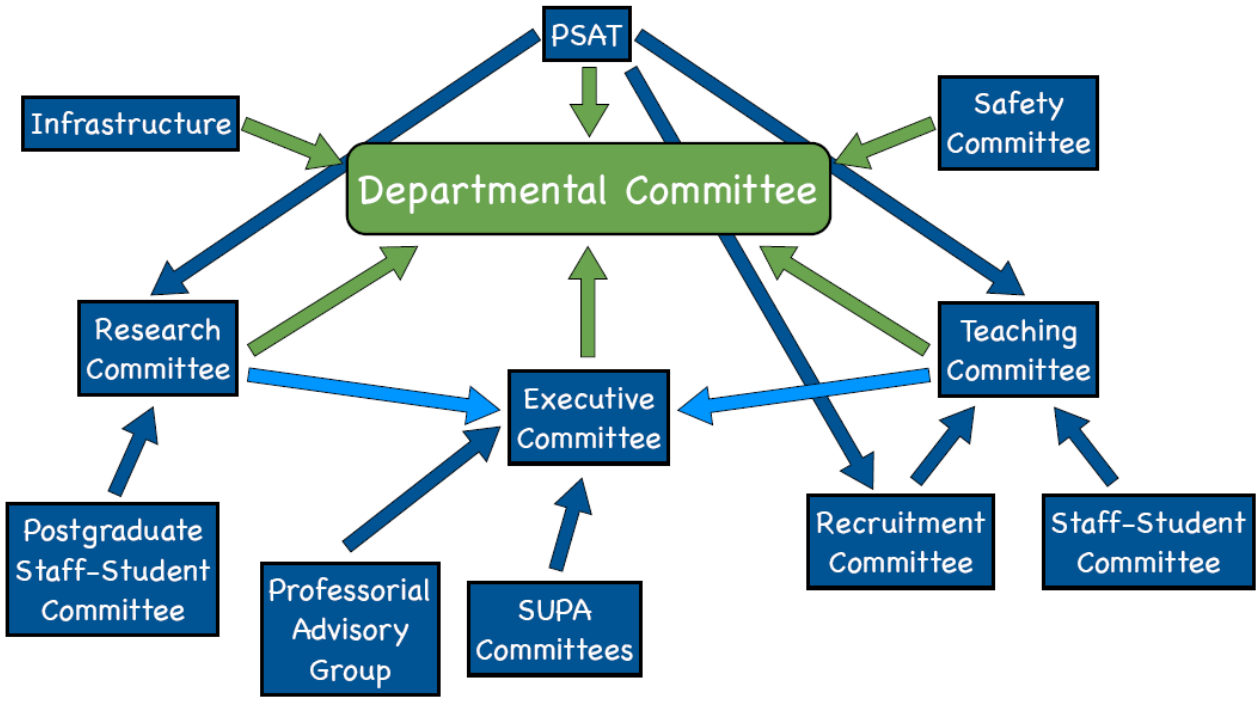


Fig 4a.i Committee structure in the Department of Physics at Strathclyde

The Department Committee (DC) is the key forum for discussion and ratification of policy in almost all areas of our activity (teaching, research, safety, infrastructure, etc.). It meets approximately 4-5 times a year, chaired by the Head of Department and comprises all academic staff together with representatives of the research, technical and administrative staff (43 members, 4 females, 4 from PSAT). The executive, research, teaching, safety and infrastructure committees all feed into the DC and bring to it all important developments in policy.

The Executive Committee (EC) comprises the Head of Department and the Directors of Research, Teaching, Knowledge Exchange and Infrastructure (5 members, 1 from PSAT). The EC meets regularly to review and discuss key developments with outcomes from the meetings reported to the DC by the Head of Department. The Research Committee is chaired by the Director of Research and comprises Heads of Research Divisions, the Postgraduate Tutor and the Administrator (9 members, 2 from PSAT). The Research Committee covers issues relating to research, knowledge exchange and postgraduate training. The Teaching Committee is chaired by the Director of Teaching and has 5 members, including 2 from PSAT. The Teaching and Research Committees report to both the EC and DC and information is also regularly emailed directly to all relevant staff. The staff-student committee includes a wide range of student representatives, selected from the undergraduate cohort by seeking volunteers and/or nominations. Currently there are 15 student representatives of which 4 are female.

Other decision-making committees important in the life of the Department are the Professorial Advisory Group and those of the Scottish Universities Physics Alliance (SUPA). The former comprises all the Professors and meets about 3 times per year to provide a forum of advice to the Head of Department and as part of this takes on responsibility for considering promotion of academics (see above). The Department is represented on a number of important committees of the Scottish Universities Physics Alliance (SUPA), for example the Executive Committee, Graduate School Management Board and Knowledge Exchange Committee. All of these include female members and in one case a female chair.

Female physicists are encouraged to sit on influential committees outside the Department. For example, we have recently contributed several female members to the University Senate and Faculty Board of Study. Beyond the University we have been represented by female staff on the committees of the Institute of Physics in Scotland, the Scottish Qualifications Agency (SQA), The Royal Philosophical Society of Glasgow, Glasgow City of Science and Women into Science and Engineering in Scotland.

Action 4.8	Continue to encourage all staff to complete equality and diversity training
Action 4.9	Add University's equality & diversity module to the checklist of items to be completed by new staff
Action 6.1	Ensure a balance of representation of women and men on decision making committees and document information

[646 words]

(ii) ***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.*

We operate a load model for Academic staff, taking into account teaching duties, management and administrative responsibilities. The model gives consideration for new staff, probationary staff, part-time staff and those returning from career breaks. The model includes teaching preparation and delivery, project supervision and administrative responsibilities. Membership of the PSAT counts as 20 hours, the same as, for example, key committees such as Safety and Teaching. Roles, such as Head of Department, Director of Teaching, Director of Research, etc., are rotated due to the heavy workload, career benefits and need for freshness. Where possible this rotation is every 3-4 years, although in some cases (notable the Director of Teaching) this has not been achieved in part due to the effectiveness of the current incumbent. We are working on succession planning **[Action 6.2]**. The workload model leads to a histogram of hours for each staff member along with an average across the Department. These data are then used to direct the allocation of new duties or the redistribution of existing ones. The workload model is constantly under review **[Action 6.2]** and we will publish the list of activities included and their weighting **[Action 6.3]**.

[193 words]

Action 6.2	Continuously review department workload model
Action 6.3	Publish list of activities contained within workload model and their weighting

(iii) ***Timing of departmental meetings and social gatherings*** *– provide evidence of consideration for those with family responsibilities, for example what the department considers to be core hours and whether there is a more flexible system in place.*

We wish to promote a work-life balance for all members of staff, including taking proper consideration of those with family responsibilities. For general purposes 10-4pm are considered as core hours and efforts taken to avoid Department meetings that run beyond 4pm. Department Committee meetings usually run from 2-4pm and Research Colloquia from 3-4pm (changed from a later time). We operate in a flexible way and if a committee member has responsibilities that impact on their availability, efforts are taken to accommodate this in meeting timings. Department guidelines on flexible working will be made available to staff, including information on how to make a formal or informal request for flexible working **[Action 7.1]**.

Action 7.1	Department guidelines on flexible working will be made available to staff, including information on how to make a formal or informal request for flexible working

[112 words]

(iv) ***Culture*** *–demonstrate how the department is female-friendly and inclusive. 'Culture' refers to the language, behaviours and other informal interactions that characterise the atmosphere of the department, and includes all staff and students.*

As discussed in previous sections we run regular social activities, for example Christmas parties, and welcome drinks when new staff are appointed, have something to celebrate, etc.. We have an active physics society and postgraduate society (see previous discussion on SCOPE). Groups of staff and students play squash, go walking, climbing, etc. The Department is very supportive and staff have regularly demonstrated a willingness to help each other out and provide advice on a formal or informal basis. For example, there are numerous examples of cover being providing for teaching at times of pressure or illness. Students have remarked that the staff are very helpful. Many groups regularly meet socially within the common areas of the Department. The culture of the Department has influenced the decision of a female staff member to remain at Strathclyde rather than taking a position at another University.

[143 words]

Fig 4a.ii. Students, staff and family at Glasgow Climbing Centre

(v) ***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.*

We actively engage schools and the general public with science and with our research through a programme of science engagement activities ranging from lectures, workshops and projects for school pupils[29], to courses and summer schools for teachers, to building science exhibits, to science street busking and tours. We work in partnership with colleagues across the University[30] and with a wide range of organisations including the Institute of Physics; British Science Association; Nuffield Foundation; Scottish Qualifications Authority; Glasgow Science Centre, Glasgow Science Festival and Glasgow City of Science. Male and female staff and students from across the Department contribute to these activities. Public engagement activities are formally recognised in the workload model and are expected and acknowledged through the ADR process and promotion processes**.**

[124 words]

Flexibility and managing career breaks

a) *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.*

(i) ***Maternity return rate*** *– comment on whether maternity return rate in the department has improved or deteriorated and any plans for further improvement. If the department is unable to provide a maternity return rate, please explain why.*

[29] http://www.strath.ac.uk/physics/outreachandschools/
[30] http://www.strath.ac.uk/publicengagement/publicengagementactivities/

There has been one application for maternity leave in the last three years, which was approved (6 months, from April – October 2010) and shortly followed by a successful case for promotion. Given the low numbers of female staff it is hard to comment on plans for improvement but if any disincentive to take maternity leave is identified we will act to remedy it **[Action 7.2].**

[65 words]

(ii) ***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.*

There have been four applications for paternity leave in the last three years, all of which were approved. Each of these was for two weeks, with two being for academics and two for researchers. We will continue with the current system, which appears to work well **[Action 7.3]**.

[52 words]

(iii) ***Numbers of applications and success rates for flexible working by gender and grade*** *– comment on any disparities. Where the number of women in the department is small applicants may wish to comment on specific examples.*

There have been no formal requests for flexible working or part-time working within the last 3 years, although a number of staff have arrangements pre-dating this. There have been a number of informal requests for flexible working in recent years, usually involving the need to provide care for others during a period of illness, and the Department has found a way to handle these without major disruption. In some cases teaching duties have been reorganised. None of these informal requests have been from female staff. **[Action 7.2].**

[87 words]

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

(i) ***Flexible working*** *– 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 department raises awareness of the options available.*

One male professor and one male senior lecturer have formal arrangements to work part-time and another two male professors have been continued to work part-time after retirement. There have been a number (approx. 6 in 3 years) of informal requests for flexible working, usually involving the need to provide care for others during a period of illness. The Department has handled these without major disruption. In some cases teaching duties have been reorganised. None of these informal requests have been from female staff. In line with University policies, all staff have the option to work from home on an occasional or regular basis with the agreement of their line manager and satisfaction of the relevant criteria **[Action 7.3]**.

[118 words]

(ii) ***Cover for maternity and adoption leave and support on return*** *– explain what the department does, beyond the university 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.*

There have been no requests for maternity leave in the past two years but as part of our action plan we will establish a support system in preparation for future requests. We will follow practice described in the Strathclyde Civil Engineering Department's Silver Award document which provides support during three critical stages: (i) prior to leave, (ii) while on leave and (iii) on return from leave:

i. **Prior to maternity, paternity, or adoption leave:** Succession plans are made and agreed with the HoD to ensure that research supervision and teaching responsibilities are transferred in a stress-free way. A Keep in touch (KIT) programme is agreed. This may also involve arranging financial assistance for maternity leave and for covering Departmental roles.

ii. **While on leave:** KIT programme implemented. KIT activities have included supervision meetings with PhD students, grant/paper writing from home, and keeping up-to-date with emails. KIT activities are entirely voluntary, but the experience of current female academic staff is that returning to work is more successful if their research is kept 'ticking over' whilst on leave and they remain in touch with their research projects, students, and postdoctoral staff. Any time spent working during the period of leave is recorded and added to the total leave period.

iii. On return from leave: Options are discussed for both phased return and flexible working at a review meeting.

[226 words]

Action 7.1	Maintain processes to assist in managing career breaks for maternity, paternity, and adoption leave
Action 7.2	Maintain processes to assist in managing career breaks for maternity, paternity, and adoption leave
Action 7.3	University recording of paternity leave
Action 7.4	University recording of applications for flexible working and success rates

[Total words 4976]

2. Any other comments: maximum 500 words

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.

Through the process of assembling this application we have become increasingly aware of the need to promote a successful "pipeline" of female physicists progressing from one level to the

other. We have focussed on ways to enhance this, from looking to increase the recruitment of female undergraduate physicists, through encouraging the transition to PhD research and then onto research staff and subsequently through the academic ranks. We recognise this path is not for everyone but wish to remove barriers for females suited to it. We believe that positive female role models are very important in this respect and will promote success stories from our female students and staff. In this application we have used examples from specific female members of the Department since we felt that certain cultures in the Department wouldn't come across clearly in through the statistics due to the low numbers.

In order to ensure we maintain a clear picture of gender-related issues that may be masked in future statistics by these small samples we will conduct further staff surveys and also use the recently formed focus group to identify further actions.

[185 words]

3. Action plan

Provide an action plan as an appendix. An action plan template is available on the Athena SWAN website.

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****.*

Department of Physics
Athena SWAN Silver Award, November 2013 submission
Action Plan – 3 years

December 2013 – November 2016

Glossary:
AS –Athena SWAN

HoD – Head of Department
DEC – Departmental Executive Committee
DC – Departmental Committee
DRC – Departmental Research Committee
DTC – Departmental Teaching Committee
IC – Infrastructure Committee
PAG – Professorial Advisory Group
PSAT – Physics Self-Assessment Team
RC – Recruitment Committee
USSC – Undergraduate Staff-Student Committee
PGSSC – Postgraduate Staff-Student Committee

UG – Undergraduate
PG – Postgraduate
PGT – Postgraduate in Taught (MSc)
PGR – Postgraduate in Research (MRes, MPhil and PhD)

CPD – Continuing Professional Development
HR – Human Resources
NSS – National Student Survey
OSDU – Organisational Staff Development Unit
RKES – Research & Knowledge Exchange Services
SRC – Scottish Resource Centre for Women in Science and Engineering
IOP – Institute of Physics
SQA – Scottish Qualifications Agency

The PSAT will liaise with the Chair and Secretary of relevant committees to ensure these actions are carried forward onto the agendas and will monitor the actions on a quarterly basis.

All actions will be assessed for their effectiveness and to review impact, to further establish evidence-based practice.
There will be a formal annual review meeting between the PSAT and the Head of Department.

Action	Description of Action	Action taken already and outcome at Nov 2013	Further action planned	Progress Log	Responsibility	Timescale	Start date	Success Measure
1	**Baseline Data and Supporting Evidence**							
1.1	Monitor participation in the Summer School, in particular the percentage of female students	Data recorded for last three years	Continue to monitor and analyse Summer School data and look for factors to promote female uptake	PSAT meetings	PSAT, RC	Annually	July 2014	Maintain or improve percentage of females (baseline 30%)
1.2	Monitor UG student recruitment by gender against UK and Scottish national average and relevant benchmarking institutions	Application and registration data collected, recorded and analysed for self – assessment process	1.2.a. Continue to monitor and analyse UG application pool. Work with IOP and SQA to continue to identify national application trends by gender	PSAT meetings	PSAT, RC, DTC	To coincide with recruitment timetables on an annual basis	January 2014	Annual reporting schedule set up for application and registration data. Relevant actions continue to be identified and taken by responsible committees
			1.2.b. Communicate application data and student registrations by gender to Department and relevant committees for further action	Report to STC and DC	PSAT, RC, DTC, DC	On an annual basis	July 2014	Data considered by relevant committees; relevant actions identified and taken.

Action	Description of Action	Action taken already and outcome at Nov 2013	Further action planned	Progress Log	Responsibility	Timescale	Start date	Success Measure
1.3	Monitor UG student performance by gender	Data collected, recorded and analysed for self-assessment process	Continue to collect and analyse data after Boards of Examiners meetings	Report to DC	PSAT, DTC	On anannual basis, to coincide with Boards of Examiners	August 2014	Annual reporting schedule set up. Data considered by relevant committees; actions identified and taken.
1.4	Monitor PGT and PGR student recruitment by gender against UK and Scottish national average and relevant benchmarking institutions	Data collected, recorded and analysed for self-assessment process	1.4.a. Continue to monitor and analyse PG application pool figures	PSAT meetings	PSAT, RC, DRC	To coincide with recruitment timetables on an annual basis	January 2014	Annual reporting schedule set up for application and registration data. Relevant actions continue to be identified and taken by responsible committees.
			1.4.b. Communicate application and registration data by gender to Department and relevant committees for further action	Report to DC	PSAT, RC, DRC	On an annual basis	March 2014	Data considered by relevant committees; actions identified and taken.

Action	Description of Action	Action taken already and outcome at Nov 2013	Further action planned	Progress Log	Responsibility	Timescale	Start date	Success Measure
1.5	Monitor PGT student performance by gender	Data collected, recorded and analysed for self-assessment process	Collect and analyse data after Boards of Examiners meetings	Report to DC	PSAT, RC, DTC	On an annual basis, to coincide with Boards of Examiners	August 2014	Annual reporting schedule set up. Data considered by relevant committees; actions identified and taken.
1.6	Monitor staff data by gender, including distribution of academic and research staff, analysis of key transition points, recruitment, progression, retention, etc.	Data collected, recorded and analysed for self-assessment	Continue data collection and analysis	Report to DC	PSAT	Annually	March 2014	Robust reporting schedule set up for collection and analysis of data. Data considered by relevant committees, actions identified and taken

Action	Description of Action	Action taken already and outcome at Nov 2013	Further action planned	Progress Log	Responsibility	Timescale	Start date	Success Measure
2	**Undergraduate Students**							
2.1	Increase recruitment of female students	Promoted UG female student success /achievements via News and Events on Department website Continuing to support schools, e.g., Advanced Higher Days, including attendance by female student/staff role models	2.1.a. Use recruitment data to gauge success of existing measures	Report to PSAT, DTC, DC	RC, PSAT	Annual reports	April 2014	Increased UG female student intake. Increased UG applications from females. Increased prospective female students attending Open Day and outreach events

Action	Description of Action	Action taken already and outcome at Nov 2013	Further action planned	Progress Log	Responsibility	Timescale	Start date	Success Measure
2.1 (cont.)		Continuing Outreach events, including attendance by female student/staff role models Successes promoted, including those of female staff and students	2.1.b. Monitor attendance and gender balance at Open Day and outreach events	Reports to DTC, DC	RC, PSAT	After each open day (2 or 3 times per year)	September 2014	Increase in prospective female students attending Open Day and outreach events.
			2.1.c. Continued updates to web/social media of gender balanced staff/student achievements and other department news	Quarterly updates to Dept website; regular updates to social media; use of PSAT and DC to collate material/ news	PSAT, Department Administrator	Ongoing	March 2014	

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2.1 (cont.)		A range of outreach events already running, such as the well received Career Workshops in Physics where the success of our women graduates in Physics Careers has been highlighted Advanced Higher day events, talks in schools, providing kit for schools	2.1.d. Continue existing outreach activities and develop further engagement with Primary and Secondary schools	PSAT and DTC, University Outreach Team meetings	PSAT, DTC, University Outreach Team, PhD students	Ongoing	July 2014	Increased applications from prospective female students
			2.1.f. Continue to review entry requirements including that of Physics at Higher Grade	DTC	DTC, DC	Ongoing	Ongoing	
			2.1.g. Maintain marketing materials & strategies to attract students from diverse backgrounds, utilising female role models where possible e.g., Running of Annual Schools lecture.	PSAT, DTC	PSAT, DTC	Ongoing annually		

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2.2	Maintain support and integration for UG students	Department supports student Physics Society, student common room, organisation of regular socials to ensure integration within the department. Students in Department also participate in Interconnect	2.2.a. Develop further social events combining UG Students and staff	PSAT, USSC	PSAT, 4th and 5th Year Students, USSC	Ongoing	October 2014	Increased engagement, satisfaction and feedback from female UG students, evidenced through student participation in events and feedback from surveys
			2.2.b. Ensure equality and diversity issues are included in on-going curriculum redesign	Report to DTC, DC	DTC	Ongoing to January 2016	Ongoing	No attrition in performance observed during and after introduction of new curriculum
			2.2.c. Identify other measures to support female students as needed. For example promote Interconnect, the Women's Engineering Society etc.	PSAT	PSAT	Ongoing	Ongoing	Ongoing dialogue with UG students and academic staff for improved satisfaction

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2.3	Implement undergraduate student to student mentoring scheme			PSAT meetings	HoD, DTC, USSC	Ongoing	March 2014	Improved support for all UG students, including female UG students. Both should be evident with improved results in NSS. Improved communication between UG year groups.
2.4	Monitor effectiveness of UG student mentoring scheme		Develop and implement monitoring methods to assess the impacts of the scheme on retention, progression, and performance.	Report to USSC, DTC	USSC, DTC	Ongoing	October 2014	Evidence from NSS/dept student surveys, feedback from USSC

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3 Postgraduate students								
3.1	Encourage more participation in PG study from female students	High take up of PhD places by females	UG advisers contact all their students on an individual basis at the beginning of their graduating year to discuss their achievements, and ensure they are aware of the opportunities available for postgraduate study.	DTC Meetings	DTC,DRC, DEC, HoD	Beginning of Semester 1	October 2014	Increased PG applications from female students
3.2	Expand support for PGR Students – RDP Courses, Mentor & Mentee courses	Courses available online	3.2.a. Liaison with RKES and OSDU to increase availability and quality of training to support PGR students	DC meetings, PSAT meetings	DTC, DRC, RKES	Ongoing	March 2014	Maintain and increase support for all PGR students in the department, including female students. Central and Dept training opportunities and mentoring identified and promoted to students

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3.3	Encourage use of part-time and flexible appointments for post-graduate research	Some part-time students already here		PSAT	DEC, DRC, HR, HoD		January 2014	Part-time and flexible appointments made and success in these
3.4	Improve postgraduate social space	Newly refurbished common room	3.2.b. Ensure better use of space once Physics obtains sole occupancy of John Anderson Building	Infrastructure committee	HoD, IC	March 2014 (More space in building)	January 2014	PG social space updated and in use by students
4	**Key Career Transition Points, Appointments and Promotions**							
4.1	Develop Department good practice guidelines setting out good practices for attracting and recruiting staff (building on those developed by our HR Team).	Use of HR policies Identified additional informal good practices in Department	Formalise good practices	DC Meetings	DTC,DRC, DEC, HoD	Ongoing	December 2013	Awareness and implementation of best practices
4.2	Monitor and ensure best practice with respect to gender balance on recruitment panels	Ensure gender balance among recruitment panels	Continue best practice	PSAT, HR, Annual review meeting HoD	PAG, DEC, HoD, HR	By 31st July 2014	February 2014	Female representation on almost all (>90%) appointment panels.

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4.3	Have the wording in our template adverts checked for gender bias	Checks already performed within Department	More formal checks by trained staff in HR, Equality & Diversity Team	PSAT	PSAT, DC	By 31st July 2014	February 2014	Wording checked and lack of bias confirmed
4.4	Continue to support Early Career Researchers, especially females	University's Researcher Development Programme (SPIRAL) and accredited CPD	4.4.a. Promote existing modules and provide feedback to OSDU	DRC, PSAT, University Intranet	DRC, OSDU	Ongoing	May 2014	Continue to retain women and enable them to progress within the department
		Mentoring for all new academic staff	4.4.b. Liaise with RKES, OSDU and Careers Service to promote CPD opportunities in the department	HoD meetings with new staff	DEC, OSDU, RKES			
		Highlight to all PGs and students and research staff the opportunities available to obtain research positions.	4.4.c. Periodic review of mentoring support		DC, HoD			

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4.4 (cont.)		Preparation support for interviews & Fellowships						
		Active, interdisciplinary research groups welcome and support new staff.	4.4.d. Document and extend best practice to all Research Groups		DRC			
4.5	Encourage use of part-time and flexible appointments for research and academic positions	Some part-time staff already here		PSAT	DEC, DRC, HR, HoD	ongoing	January 2014	Part-time and flexible appointments made and success in these
4.6	Increased percentage of females applying for positions in the Department	Wide advertising, building "pipeline" of staff, raising profile of females within the Dept.	Increase profile of female staff, further building of the "pipeline"	PSAT	DEC, DRC, HR, HoD	ongoing	ongoing	Increased percentage of female applicants
4.7	Show clear and up-to-date promotion criteria to demonstrate fairness	University criteria and expectations recently updated and made clearer	Raise awareness and discuss with Centre	Faculty and HR meetings, Annual review meeting, report to PAG	PAG, Equality & Diversity Manager, HR, PSAT	Within the next 6 months	June 2014	Documentation revised to make promotion criteria clear for all staff.

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4.8	Improve promotion support	Mentoring and support provided during key periods ahead of promotion	Continue mentoring support and remind staff of available support	DEC, PSAT meetings, Annual review meeting HoD	PAG, HoD, HR Department	By 31st July 2015	February 2015	Continued advancement of all academic staff, especially women.
4.9	Continue to encourage all staff to complete equality and diversity training	Completion rate of University E&D module is already high (twice University average)	Further communication and encouragement to staff	PSAT	PSAT	ongoing	ongoing	Higher percentage of staff having completed E&D training.
4.10	Add University's equality & diversity module to the checklist of items to be completed by new staff	Induction Pack provides information on equality & diversity training	Add equality & diversity training to checklist	PSAT	HoD	January 2014	January 2014	All new staff complete equality & diversity training
5	**Career Advice and Support**							
5.1	Raise profile of female students and staff	Recent success stories promoted – e.g. the research of our female academics,	4.1.a. Collection of success stories and awards 4.1.b. Identify appropriate content for future	Departmental website and research newsletter	HoD, PSAT, Department Administrator, Faculty Marketing Development	Ongoing	January 2014	Information on website. Regular reviews of relevant web and print materials to confirm female profiles

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		awards to female students, female alumni stories	publications and webpages					adequately promoted
5.2	Promotion of specific courses -Mentoring, Supervision of PG students, Recruitment, Coaching, Leadership Development	Mentoring Skills Workshop for Women in Science and Engineering (OSDU) Coaching for Success (SRC); OSDU Online resources	Discuss further with OSDU and SRC how best to promote courses for women	PSAT, Department Intranet	PSAT, OSDU	Annually	March 2014	Provide women with training and support specific to their needs and career development
5.3	Promote and enhance networking events for women	Existing networks include WES, interconnect	Promote existing and developing networks	PSAT, Department Intranet	PSAT	Ongoing	Ongoing	Increased participation in women networks

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6	**Culture, Communication and Departmental Organization**							
6.1	Ensure a balance of representation of women and men on decision making committees and document information	Monitored and evaluated	Create system for advising staff on committee membership – Make available on Department Intranet	PSAT meetings, Department Intranet, Annual review meeting with HoD	DEC, HoD	Ongoing	October 2014	Committees are balanced. All staff aware of committee structure, representation and progression to leadership.
6.2	Continuously review department workload model	The Department operates a load model that takes into account teaching duties, management and administrative responsibilities. It also includes succession planning so that no one member of staff carries sole responsibility for a given task.	Workload Model is constantly under review to take account new activities in the Department.	DEC, Department meeting	DEC, HoD	By December 2014	July 2014	Updated workload model including formal recognition of all activities

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6.3	Publish list of activities contained within workload model and their weighting	Data available to any who ask	Publish list	PSAT	HoD, Administrator, Director of Teaching	March 2014	January 2014	Published up-to-date list
7	**Career breaks/flexible working**							
7.1	Department guidelines on flexible working will be made available to staff, including information on how to make a formal or informal request for flexible working	University guidelines available	Prepare Departmental document linking to University guidelines	PSAT	PSAT	May 2014	February 2014	Published guidelines
7.2	Maintain processes to assist in managing career breaks for maternity, paternity, and adoption leave		Monitor practice through the three critical stages: (1) up to parental leave, (2) on leave (KIT), and (3) upon return. Share good practice with management and other women at the University	PSAT meetings, Department Intranet, Annual review meetings with HoD,	PSAT, HoD HR Department	Ongoing	June 2014	Continued return to work of new parents. Practices shared with other women at the University and senior management.

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7.3	University recording of paternity leave		Liaise with HR	PSAT meetings, central AS University committee	Equality & Diversity Manager, PSAT	Ongoing	30 April 2014 (University Action)	University record of paternity leave.
7.4	University recording of applications for flexible working and success rates		Liaise with HR	PSAT meetings, central AS University committee	Equality & Diversity Manager, PSAT	Ongoing	30 April 2014 (University Action)	University record of applications for flexible working and success rates
7.5	Use shared responsibility for delivering teaching courses to promote flexible working	A number of courses are already shared	Make staff aware of the possible benefits of shared responsibility	PSAT, DTC	DTC	Ongoing	Ongoing	Where appropriate staff move to shared responsibility of teaching