

An Institute of Physics Report | September 2016

Journeying to the end of the rainbow?

A guide for Juno Champions working towards Athena SWAN Gold



The **Institute of Physics** is a leading scientific membership society working to advance physics for the benefit of all.

We have a worldwide membership of more than 50,000, from enthusiastic amateurs to those at the top of their fields in academia, business, education and government.

Our purpose is to gather, inspire, guide, represent and celebrate all who share a passion for physics. And, in our role as a charity, we're here to ensure that physics delivers on its exceptional potential to benefit society.

Alongside professional support for our members, we engage with policymakers and the public to increase awareness and understanding of the value that physics holds for all of us.

Our subsidiary company, IOP Publishing, is world leader in scientific communications, publishing journals, ebooks, magazines and websites globally.

You can help us transform the future of our discipline. Invest in physics today at **iop.org/fundraising**.

Find out about our strategy for success at **iop.org/strategy**.

Acknowledgements

Dr Sean McWhinnie of Oxford Research and Policy for initial preparation of material for the report.

Professor Val Gibson, Chair of the Juno panel.

For permission to use examples of their Athena SWAN Gold Beacon activities:

Imperial College, Department of Chemistry

University of Cambridge, Department of Physics

University of Edinburgh, Department of Chemistry

University of York, Department of Chemistry

Foreword



The IOP's Project Juno supports physics departments at all stages of their journey to gender equality, and this includes supporting those wishing to achieve Athena SWAN Gold.

Although the expectation is that Gold departments have significantly more good practice in place than Juno Champion/Silver departments, and that good practice is clearly embedded, the Athena SWAN assessment panel doesn't expect perfection. Like Juno, Athena SWAN is a process of continual improvement, and when Cavendish was awarded its Gold, we felt that this was just the start of a new journey.

In order to achieve Gold, a department will need to demonstrate that it has implemented its Champion/Silver action plan, and that it has had positive results and deeper impact. There is also an expectation of having beacon activities in place. We have included examples of beacon activities from other Gold departments throughout this guide, and we hope that this encourages you to think of the types of activities that you are already doing that could also count as beacon activities.

Throughout the guide, we have included as many questions as we can to help develop your thinking further. You may have already considered some of these. As you read through this guide, think about the following:

- If a Juno Panel member walked into your department and asked a member of staff what Juno or Athena SWAN meant to the department, would you be confident they would know what to say?
- If your Juno Chair or lead stepped down tomorrow, would the activities still continue? Will the work withstand changes of management and strategic direction?
- Are senior members of staff actively involved in this work?
- Are important gender equality/diversity targets incorporated into your department's strategy and objectives, and equality responsibilities embedded into job roles?

We hope that you find this guide helpful in answering those questions and that it provides you with a renewed focus and a clear goal as you move beyond Juno Champion.

Professor Valerie Gibson
Chair, IOP Juno Assessment Panel

Contents

Gathering your data: going beyond the basics	5
Student data	5
Staff data	6
Research Excellence Framework (REF) data	7
Outreach data	7
Progression pipeline data	8
Engaging the whole department	9
Engaging with all staff	9
Support for female students	13
Thinking about postdoctoral research associates	14
Having an impact: implementing your action plan	16
Filling out the application form: our top tips	18
A word on word limits	18
Describing processes and procedures	18
Feedback is crucial	19
Any other comments...	19
Beacon activities	19
Your Gold action plan	20
Summary of tips for the Gold action plan	21

Gathering your data: going beyond the basics?

Athena SWAN is explicit in defining the data that needs to be analysed and presented when an application is made for an award.

While there might not appear to be much difference between what is requested at Silver and at Gold, in reality, the expectation is that for Gold the data will have been examined in much more detail and over a longer period of time – a minimum of five years, and ideally at least seven. Data-collection processes should be well established, and there should not be any gaps in the minimum data required in the SWAN Gold application form. Generally, there should not be any actions referring to ongoing collection and monitoring of standard student and staff datasets, as a department should have already embedded these in its data processes by the time an application for Gold is made.

Benchmarking data against the national data for physics should have been carried out, but it is advisable to make some other comparisons, for example against similar institutions (the Russell Group) or groups of institutions regionally.

Set out below are some questions for discussion and analysis, to consider as the department moves beyond Champion.

Student data

- Are there differences in the entry qualifications of women and men?
- Do the proportions of students vary by domicile and gender? Are the proportions of female home students what you might expect?
- If there is a foundation course, do different proportions of females and males go on to study physics/astronomy?
- Are there gender differences in module or end-of-year exam marks?
- Does project choice or allocation differ by gender?
- Are there any gender differences in destinations of the undergraduates or postgraduates? Are there gender differences in the likelihood of them staying in physics or other STEM roles/study?
- Are there gendered patterns in the applications and acceptances for PhDs in different research areas?

Beacon activity: Exam question style and performance

The University of Cambridge's Department of Physics carried out a detailed examination of the performance of first-year natural science students in physics. Women did not perform as well as men, and some of this difference appeared to be related to women's confidence in maths. Women were less likely to have taken advanced maths at A-level than men. The department's findings lead to changes to the way that maths was taught – reducing the breadth and increasing the emphasis on problem solving – and led to other departments also monitoring first-year performance. Further work also looked at how the style of exam questions affected performance. The results showed that scaffolded questions improve performance of both genders from all school backgrounds, with women benefitting preferentially.¹

Department of Physics, University of Cambridge



Gathering your data: going beyond the basics?

Staff data

- Are there systematic gender differences between staff on different contracts or between staff on open-ended versus fixed-term contracts?
- Have postdoctoral research associates (PDRAs) been considered separately from academic staff to demonstrate that their distinct needs are considered?
- Are the proportions of women and men applying for posts at all levels representative of the current candidate pool? Are they representative of the pool from the level below (ie, do candidates for PDRA posts match the make-up of the doctoral students and do candidates for lecturer positions match the make-up of the PDRA pool in the UK)?
- Are there any patterns related to different research areas or groups?



Beacon activity: Staff recruitment

In the Department of Chemistry at Imperial College, a separate search committee is tasked with identifying and approaching female candidates. It also monitors the proportion of those applying and being interviewed who are female. All non-appointed female candidates are offered individual feedback. Particularly promising unsuccessful candidates are given a mentor within the department to help with future applications; and the intention is that they will be supported in fellowship applications.

Department of Chemistry, Imperial College

- While your department may not directly employ some of its professional and support staff, has it gathered data about them? Has consideration been given about how to demonstrate how the department supports these staff and includes them in departmental activities and initiatives?



Beacon activity: Maternity mentor

The department has assigned a female maternity mentor who discusses pre- and post-maternity arrangements with people requesting maternity leave. The department accommodates requests, consistent with our Child Policy, such as provision of breastfeeding/expressing facilities and keeping-in-touch days. The maternity mentor provides further support prior to maternity leave and during the return to work period.

Department of Physics, University of Cambridge

- Has the department separately analysed data for part-time staff, and explored how they can transfer to full-time contracts in the future?



Beacon activity: Part-time working

All applications for part-time working have been approved by the department, including those where an increase in hours is requested following on from a previous decrease to allow for family commitments (part-time working assurance). Our assurance states that subject to available finances and role availability, the department expects to approve all reasonable requests from full-time staff to move to part-time working and vice versa. (We have disseminated information on the assurance both internally and externally to the university.) It's encouraging to see that the number of academic staff, including males, working part-time has increased at all grades (since 2012, the number of requests for a change in hours is 11 (one male, 10 female) for research staff and eight (two male, six female) for academic staff).

Department of Chemistry, University of York

Research Excellence Framework (REF) data

Departments should consider separately the proportions of eligible (category A) women and men submitted to the last REF, and perhaps the one before. At Gold, it is important to demonstrate that action is taken to support staff to ensure that non-submission rates are as low as possible. Departments should outline why staff were not submitted and give the number of those staff who were submitted under special circumstances.

- If a department has relatively low submission rates, what actions are in place to increase these rates in the future?

Outreach data

Departments are explicitly required to provide data on the involvement of staff and students in outreach activities.

- What outreach activities are staff and students involved in?
- Are any of the department's students involved in STEM ambassador schemes?
- Does the department run any female-only events?
- How is participant uptake recorded?
- How does the gender balance of the participants compare with what might be expected? Can more be done to involve more females?
- How are outreach activities included in workload calculations?
- Is there any evaluation of the effectiveness of the outreach activities?

Beacon activity: Outreach programme



The department runs a very active Outreach programme, directed by a female outreach officer and assisted by a part-time (half-day per week) male outreach officer. The outreach officer received the 2012 IOP Philips Award for her dedication to outreach and contributions to the IOP East Anglia branch. The outreach strategy of the department is to raise aspirations and widen participation of students aged 11–19 by offering a diverse range of activities, mostly for schools in East Anglia and the South East, and increasingly reaching all areas of the UK. Numerous events are run throughout the year by the department and individual research groups, relying on the support and contributions of academic staff, researchers and students. Contributions vary from hour-long lectures to practical demonstrations and experimental support and are recognised as essential transferable skills in researcher and postgraduate training programmes. In all events, we expose participants to our female lecturers and demonstrators.

Of particular note are two schemes that specifically address the “girls into physics” issue: The work experience scheme, where we target high-achieving local pupils (especially girls) who have a real desire to study physics; over the last four years, 25 (44) girls (boys) have been supervised by 26 (43) women (men); and

The Newnham Women in Science project (linked to the all-female Newnham College), which links the department with under-represented groups in Cambridge and the London boroughs.

Department of Physics, University of Cambridge

Gathering your data: going beyond the basics?

Progression pipeline data

Departments are expected to compare explicitly the data on the proportions of women at undergraduate, Postgraduate taught (PGT) and Postgraduate research (PGR) levels.

- Do the data suggest that the proportion of female students falls from undergraduate to PGT and PGR levels? How does your pipeline compare with the national pipeline in physics?
- If your department offers astronomy at undergraduate and postgraduate levels, can separate physics and astronomy pipeline data be analysed?
- Has the department's pipeline changed over time?

Engaging the whole department

The key to progressing to Gold is demonstrating that the whole department is engaged in this work, even if not everyone is actively involved, and to demonstrate real embeddedness across the department. It is vital that all the work for delivering on the action plan does not simply fall on the Juno/Equality and Diversity (E&D) Committee or your Self Assessment Team (SAT).

One of the biggest challenges of working towards Athena SWAN Gold is how best to engage all staff in the department and demonstrate that engagement.

Ask the questions:

- How will a PDRA know anything about the departments' Athena SWAN/Juno activities?
- Are all staff at least aware of Athena SWAN/Juno activities?
- What qualitative survey data are available that will show what staff and students think of the changes to processes and procedures?
- Do staff report that they are happier, that they understand processes better, and that they have a better work–life balance?

In smaller departments it may be easier to demonstrate staff engagement, but this may not be the same for PDRA's. In larger departments, it may be harder to communicate to the whole staff body let alone demonstrate that staff are all engaged.

The department should carry out surveys of staff and student opinions covering the main processes and procedures, and also cover issues around culture and well-being. Ideally, surveys should be timed to fit in with the department's Juno/Athena SWAN applications, rather than a specific schedule, in order to include an up-to-date analysis of the most recent survey. When designing and running surveys, the department should bear in mind the importance of collecting opinions of PDRA's and of professional and support staff. Also, particularly large departments should try to distinguish between research groups, where anonymity allows.

Engaging with all staff

A department may have already expanded the remit of the SAT or Juno committee to deal with equality and diversity more generally, and to deal with general working conditions and welfare issues. It's a good idea to get the message out to all staff that the committee is interested in improving the working practices for all staff – not just for women and not just for academic staff. A department should be aiming to demonstrate that all staff are happy with the support in place and that their feedback has been taken on board.

SATs could organise a regular cycle of coffee mornings to make their members available to discuss equality and diversity issues with staff; and more formal events to discuss and consult on specific issues. They should ensure that senior managers in the department are visibly involved in these.

As well as holding discussions for specific staff groups, such as recently appointed staff, try to invite all members of staff to at least one discussion group in the run-up to a Gold submission. If there is an awareness that specific groups are disengaged with this work, try to meet them to explore how to engage with them better.

Engaging the whole department

The following discussion points could be used for engaging with all staff, either through focus groups, at an all-staff meeting, or even at an away day:

Departmental values

Start working on defining departmental values. An agreed set of values could be developed, involving all staff in the department in the work. Think about how a new member of staff would know what the standards of behaviour are.

- Is everyone in the department treated with respect?
- Do staff know what to do if they have concerns about the way that they are being treated?
- Where is the policy on harassment and bullying?

Appraisal or staff-development review

Appraisal or review is one of the areas where it is expected that there will be a comprehensive system in place in which all staff, including PDRAs, undergo regular review or appraisal.

- What is the take-up of appraisal or review and does it differ by gender?
- What training is in place for appraisers and appraisees?
- How can it be ensured that the process allows for consideration of how personal circumstances might have affected someone?
- Is there a mechanism in place to ensure that the department follows up issues and delivers training?
- Is the review process different for staff at different career stages?
- How does the department involve staff in feeding back views of the process?
- What are the perceptions of the process?
- Do staff value appraisals or reviews?
- Is preparation for promotion covered during the process?

Support for new staff

Think about the support that the department provides for new members of staff and ask staff for feedback on the support that is available. This goes beyond having a simple induction process with a checklist.

Think about and discuss what support there is in place for new lecturers.

- Do they have reduced teaching and administration loads that gradually increase over two or three years?
- Do they have a comprehensive training package?
- Is there specific support for writing grants or publication writing?
- Are checks in place to monitor the uptake of what is on offer, to collect feedback from staff, and to highlight findings from this feedback?
- Does the department encourage staff to join professional bodies and to take part in their activities as part of their development?

Supporting career progression

Departments often concentrate on the promotions process itself, but they should also take time to consider how all staff members' career progression is supported.

- How does the department encourage staff to take up faculty, university management or committee roles? Are there opportunities for junior staff to develop into committee roles?
- Is there support for more senior staff to work towards gaining a chair?
- Is there a leadership development scheme, such as the Leadership Foundation's Aurora², for female staff?

- What systems are in place to help staff develop successful research grant applications? Are there formal or informal systems in place to review draft grant applications? Do grants have to be “approved” before they can be submitted? Where there are informal systems, are there any checks to ensure that staff actually take advantage of the support?
- Does the department have any support in place for staff whose success rates are particularly low? Has the department any mentoring or similar support schemes in place to help get staff members’ research back on track?
- What training is mandatory in the department? Does the department go beyond the standard university equality and diversity training to help staff understand the challenges faced by physics? What monitoring is there of the take-up of this training and its quality?
- How are the training needs identified and followed up as part of the appraisal process? Do you have records of the training that staff take? How is the effectiveness of training evaluated?
- Does the department routinely identify individuals whose careers may have “flat-lined” and put in place a support package to try to boost their research careers?
- How do you support the career development of your teaching-only staff? Have you any examples of your teaching-only staff applying for promotion successfully?
- What about training for professional and support staff?
- Are staff happy with the support that is in place?

Career breaks and returners

A successful application for Gold will require departments to have comprehensive packages of support in place for women before, during and after maternity leave. With the introduction of shared parental leave, this is becoming equally important for men. Even if nobody has taken a career break for several years, the department should still review the available support and how it’s managed.

Beacon activity: Fellowship award

The Chemistry Department automatically applies to the Elsie Widdowson Fellowship Award for all academics taking maternity leave. The fellowship provides 50% funding from Imperial College to relieve the academic of any teaching or administration duties for 12 months after their return, allowing them to focus solely on their research. How the money is used is discussed and agreed with the member of staff. Usually, it is used to employ or pay current staff to take on teaching or administrative duties. The paperwork is coordinated by the department operations manager who is the owner of the process (not the academic). This means that staff has support packages tailored to their specific requirements. The women that have been awarded the fellowship will be making full submissions to the upcoming REF, and both have recently been promoted to professor, indicating that the research and career progression of these women has not been adversely affected. Comprehensive support for women before, during and after maternity leave is now the norm in the department.

Department of Chemistry, Imperial College



Staff leavers

It is valuable to record the reasons for leaving and where they move on to. In the main, staff either retire or move on to academic posts elsewhere but is there any evidence that men or women leave academia?

- Do you conduct exit interviews? What happens to the exit interview information? How is it used to review processes?
- In the case of PDRAs, do you know where they move on to and what they do? Are there any gendered patterns? Are there patterns that relate to different research groups?

Monitoring HR policies

The best way to monitor issues such as equality, dignity at work, bullying, and harassment is through anonymous surveys. For example, staff should be asked if they have been subjected to, or witnessed, any instances of bullying or harassment. In doing so it may be useful to outline exactly what constitutes bullying and harassment. It is also valuable to have asked staff whether they have been subjected to, or have witnessed, any discrimination on the basis of any protected characteristic.

- Are there any clear differences between the responses of women and men? If there is any clear evidence of harassment, bullying and/or discrimination, have you got actions in place to tackle this?
- Does the institution have means by which staff members can discuss issues confidentially, perhaps with a member of HR staff? Are there means by which instances of bullying, harassment or discrimination can be reported anonymously, albeit on the understanding that anonymous reporting may not enable any action to be taken?
- Does the department check that doctoral students are not subject to any bullying, harassment or discrimination? Do all supervisors treat their doctoral students well? What about taught postgraduates and undergraduates?
- How would the department monitor the consistency of grievance or disciplinary procedures?
- Does the department have an assigned HR staff member? How does she or he work with the department?
- How does the HR department communicate policy changes to departments and managers?
- How are new line managers brought up to speed with relevant processes and procedures?
- What kind of training is available? Is this training compulsory for new managers?
- How does the department check that staff undertakes the training that they need?

Support for female students

Many departments find it difficult to identify what they can do specifically to support female students for Athena SWAN applications. It is difficult to know, for example, if the undergraduates understand what being in a Juno Champion or Athena SWAN Gold department means. As your department works towards Gold, it is important to highlight the support for female students both pastorally and in terms of careers advice.

- Can female students request a female tutor if they wish to have one?
- Is there a women's officer in place that female students could see if they wished?
- Is any consideration given to the makeup of tutorial groups to avoid solitary women being in a group otherwise made up entirely of men?
- What are the department mechanisms and processes to deal with any harassment issues?
- Are any events held to encourage young women to pursue careers in science/physics?
- If there are university women in science activities, does the department actively promote them and do female students regularly attend them?

For postgraduates, think about the general arrangements for supervising doctoral students.

- Is there a second supervisor system, and are students encouraged to see them?
- Is there a member of staff with specific responsibility for the progress and development of doctoral students? Or for female doctoral students?

Take note of the recommendations and issues raised by the Institute's report *Gazing at the Future*³. Consider whether there are any issues specific to the research group that might disproportionately affect female students. As with the other student groups, also consider careers advice and support for female doctoral students.

Consider how feedback is collected from students on support mechanisms, what that feedback tells the department, and how the department acts on it.

Thinking about postdoctoral research associates

At Gold level, a department should be aware of the needs of PDRAs and have some structures in place to meeting these, rather than just using the same support structure that is in place for academics or even students. The best departments ensure that PDRAs are fully integrated into departmental structures and that they have access to training and development. Most departments will, by now, have a Postdoc Forum or equivalent, which often has a small budget and sometimes has a delegate from the academic staff. Maintaining momentum with the forum can be difficult, particularly with turnover issues, but the department can encourage this by ensuring that it's resourced adequately and that there is a mechanism for ensuring that any issues raised are acted on. Momentum can also be tricky if all the immediate issues for PDRAs have been solved.

For PDRAs, data should be examined to check whether there are differences in the turnover rates for women and men. Do you know whether any PDRAs have resigned before the end of their contracts? While the majority of PDRAs will be in roles funded by grant income, it is important to understand whether there is any gender differences in the likelihood of staff having their roles' funding extended.

It is important that PDRAs are appraised and that the appraisal or review scheme is adapted for their needs. For example:

- Does the timing of the PDRAs' appraisal fit in with their contracts, rather than all appraisal meetings being held at the same time of year?
- Has the department given thought to providing an appraiser independent of the PDRA's Principal Investigator (PI) so that the meeting truly focuses on development?
- What monitoring is there of the quality of the PDRA appraisal?
- How are the PDRAs accessing independent careers advice?
- Are all PDRAs encouraged to attend national and international conferences?
- Does the department provide funds for conference attendance if required?
- Are PDRAs encouraged to undertake teaching duties if they wish to?
- Is there training available for PDRAs who wish to teach?
- Are the views of PDRAs collected and used to adapt and improve provision?
- Does the department know the destinations of its PDRAs?
- Are PDRAs included in the department's workload model?
- Is promotion covered during PDRAs' appraisals? Are there discussions of PDRAs' career ambitions and how these can be achieved?

One question that departments need to think about is specifically what advice is given to PDRAs about the likelihood of obtaining a permanent academic position. Objective feedback on this issue is often valued. Sometimes, PDRAs genuinely do not know whether they have a good chance of landing a permanent academic position and would appreciate some guidance as to whether they would be wise to pursue this option. The IOP has carried out research on this and recommends reading its report *Mapping the Future: Postdoctoral Researchers' Experiences and Career Intentions*⁴.

Beacon activity: Networking for female researchers



The recognition of the drop in percentages of females mainly at postdoctoral level prompted the organisation of a networking event aimed predominantly at young female researchers (postgraduates and postdocs) but open to all members of staff. This was initially planned to take place within chemistry but was extended to incorporate all schools within the College of Science and Engineering under the prompting (and with the financial support) of the head of college. The first event took place on 20 April 2012, hosted by the School of Chemistry. The written feedback is currently being evaluated but the overall impression and oral feedback received on the day was very positive. The event consisted of a series of talks by distinguished invited female speakers in the morning ranging from scientific general interest talks to personal biographical talks; events to encourage networking such as “speed-dating” and poster sessions and discussion break-out sessions in the afternoon where a range of topics of relevance to women in academic careers were discussed and a number of problems and potential solutions presented. Eighty participants signed up for this event with representation from all schools. It is intended to make this an annual event. Issues raised at the break-out discussions will inform our action plan.

Department of Chemistry, University of Edinburgh

Having an impact: implementing your action plan

At Gold level, the assumption is that a department has already made significant progress in implementing good working practices. Increasing the proportion of female academic staff or students will take some time, but the department will need to evidence the steps being taken in terms of changes to processes and procedures, and in undertaking more thorough investigations into issues, such as understanding data better or finding out how working practices can be improved.

There will likely still be much work to do to attract a greater number of female applicants for jobs, to encourage more female students at all levels, and to support the careers of all staff. It is likely that the department will already be looking more deeply into issues – perhaps a project is being planned to look at the destinations of graduates to find out whether there are any gender differences or pay gaps. Perhaps there is an interest in exploring the distribution of women in physics by research area.

One thing to consider is whether there have been any improvements in numerical indicators since the Juno journey began. For example:

- Have the promotion application and success rates for women improved since the introduction of a proactive approach to encouraging staff to apply?
- Has the conversion rate of offers to acceptances for female students improved since revising the way that UCAS days were organised and started following up by telephone offers made to women?
- Has participation in the culture survey improved over the time period since the last award?

One of the issues that many SATs face is maintaining momentum between gaining and renewing or applying for a higher-level award. Reviewing the membership of the committee is important to ensure that there is engagement with all staff, and that existing members do not suffer from fatigue. Working groups could be used to drive forward business and encourage wider representation of staff on the working groups. Staff can be encouraged to report back to their respective group meetings and demonstrate that they are doing so.

As the department works towards Gold, one thing that is worth doing is to implement an annual cycle of business including all the main tasks that should take place. For example:

- A listing of all annual data updates with dates of when the data are due to be available and when they will be reported to the SAT.
- A formal review of the action plan. This is in addition to the on-going reviewing of general progress with actions. It should be designed to modify planned actions in the light of those that are already completed or underway, and to add new actions. The department can then publish an official revised version of the action plan.
- Audit all actions to ensure that they flow from the self-assessment.
- Plans for an on-going programme of coffee mornings and other events designed to engage with staff and students.
- Dates for reviewing and refreshing the SAT membership.
- Any other on-going annual events and activities that the SAT has agreed upon.

Having an impact: implementing your action plan

The simplest way to keep track of progress is to adapt the original action plan by adding a progress commentary column, perhaps coupled with changing the success measure column into an achievements column. Use the progress column to describe briefly what progress has been made with each action and to make clear whether the action has been achieved/completed, is underway or has not started. It is also a good idea to use a traffic-light system to indicate actions that have been completed (green), are underway (orange), or have not been started (red). Either colour, the cells in the progress column, or add another column.

For completed actions simply writing “completed” is sufficient, but make sure that there is a note of anything extra that may have been achieved and whether this has led to any additional actions. This information can be added to the traffic-light column if one has been used, or add another column, or include the details in the progress column.

Where actions are underway but have not been completed, write a little about how much progress there has been. Doing this on an on-going basis will mean that when progress is regularly reviewed, there will be an up-to-date commentary on how well it is going and it will be easy to spot early in the process if issues arise.

Where actions have not yet started, regularly review these to help determine whether there is still an intention to carry out the action or whether circumstances have changed meaning that the action is no longer necessary and/or appropriate.

Try to avoid labelling actions as on-going. An action such as “regularly monitor the destinations of undergraduates by gender” marked as on-going should be replaced with, for example, “establish the regular monitoring of the destination of undergraduates by gender within the teaching committee”, with a specific target date for annual reporting.

Ensure that when targets are set, they are not too far removed from the actions. An action such as “review the destinations of undergraduates” should have a target, such as “establish a regular process of reviewing destinations, and produce a report summarising the past five years’ data”. A target such as “increase the proportion of women graduates undertaking doctoral study” would be too far removed from the actual action.

Filling out the application form: our top tips

A word on word limits

The word limits for Athena SWAN mean that choices have to be made as to what is actually put in the application. Although charts and numerical tables do not count towards the word limit, assessors do expect commentary on the data presented. It may be better not to present data where there are no clear gender-related conclusions to be drawn. However, it is still worth indicating to panels the detail that the analysis has gone into with a brief sentence or bullet point.

If very detailed work has been carried out in certain areas, it is unlikely that it can be described at any length. One option for expanding on the commentary is to include more information in the “any other comments” section. The summary of the previous action plan Brief details of what has been done can also be included in. The most important thing is to consider the data and to briefly describe what there is in place.

Describing processes and procedures

Ensure that the main text of the application includes a description of the new processes and procedures that have been introduced through implementing the action plan. Don't waste words continually referring to the fact that specific processes are the result of a recent action: just describe the good practice currently in place. It's also a good idea to add cross-references to the old action plan as appropriate when describing processes and procedures that have been introduced or revised and/or one-off actions that have been carried out. For example:

“The PDRA forum was established two years ago and meets once a term. Any issues raised are fed to the management team (Champion Action 4.1).”

“A survey of undergraduate students indicated that while in general the department was welcoming on UCAS days, there was too much waiting around during the day (Silver Action 2.3). Consequently, we have introduced additional activities and tours so that applicants spend less time waiting to be interviewed.”

When describing a process or procedure a general pattern to follow is:

- Describe the process/procedure, covering any relevant issues, such as the frequency, staff involved, the scope of the process, any training in place and what checks exist to ensure that what is supposed to happen does actually happen.
- Present relevant data, such as completion, uptake or success rates for academic staff and postdocs.
- Tell the panel what staff think about the process using data from surveys, focus groups, interviews.

- Ensure that the processes and procedures are considered and adapted for postdoctoral research fellows.
- Ensure that any gaps in practice or issues highlighted arising from the staff feedback have been identified.
- Briefly highlight what actions will be taken to address any issues. The full details of any action can be presented in the action plan but it is important that it is clear to a panel that an action has been defined and there are actions to address gaps or issues arising from the feedback.

Feedback is crucial

In everything that is presented, focus on feedback. Talk about the feedback/perceptions obtained from staff or students on particular issues, the process and its perceived fairness. The best departments have good working practices in place that support all staff. Therefore, talk about the good support that happens in your department for all the staff, and present feedback from everyone, but also highlight any initiatives specially aimed at women, and any initiatives where the effect on women seems greater than that on men.

Any other comments...

If it is decided to use the comments section, make sure that it is not used as an overflow for other sections in the application form. A number of departments use this section as a summary of where they have got to in their Athena SWAN/Juno journey, perhaps reiterating their philosophy and vision. This does not add greatly to applications. It is best to reserve this section to communicate new information. The kind of things that might be covered are:

- Findings from staff surveys and discussion groups that do not fit elsewhere in the application form.
- Initiatives that the department is involved in, that don't fit elsewhere in the application form, or where the department has gone well beyond what was asked in the application form.
- How the department supports other departments in the university and other departments outside the university in cognate disciplines.
- Activities that staff have undertaken acting as ambassadors for Athena SWAN. In particular, are there any members of staff who have a national profile in talking about Athena SWAN/Juno?

Beacon activities

We strongly recommend that, throughout the application, beacon activities are highlighted. In the application form there is a specific section on beacon activity, in which applicants are asked to outline how the department is a beacon of achievement, including how it promotes good practice internally and externally. One way to think of these activities are as areas where a department is doing more, going further or looking deeper – activities where the department has invested particular effort in order to make a real difference. Where activities don't naturally fit under another specific section, these should be described in the beacon activity section.



Beacon activity: Annual workload survey

A beacon activity within the university is our annual workload survey, launched in 2011, which provides an overall picture of the work that academic and senior research staff undertake on behalf of the department. It provides a crucial tool for the head of department and SMG when assigning departmental responsibilities, such as teaching tasks and committee work, writing cases for promotion, and allocation of resources.

The workload model is based on a system of predetermined points and is divided into categories. Guidelines for the expected number of points in each category are advertised. For example, the guideline for outreach is five to 50 points per year (which in this case is equivalent to the number of hours). No member of staff is required to undertake outreach, although those that choose to do so can reduce their contributions in other areas accordingly. Extraordinary contributions, such as the preparation of the Athena SWAN Gold application, are fully accounted for. Some categories, such as number of PhD students and college teaching, are capped to prevent focused activities in these areas. The workload model is independent of seniority, and the total workload points should be roughly equal for all academic staff, except for new staff and those on leave. Work on women in science is embedded within all categories.

The workload survey is conducted via a web-based facility. The results are accessible to all; each user can access their own workload and compare it to the distributions and averages for all. Access to individual returns is provided for the head of department, the senior management group (SMG) and the chair of the Personnel Committee.

The workload survey is considered to be a great success and widely accepted as fair to all. It is used as a prime example of good practice in the school's Equality and Diversity Forum and the university's Gender Equality Group, and is being adopted by other departments.

Department of Physics, University of Cambridge

Your Gold action plan

Actions in the Gold plan should be designed to review, establish or modify processes or procedures based on a substantial body of evidence (5–7 years' data, regular surveys, focus groups, etc) or to carry out one-off projects or tasks. Check the department action plan to ensure that all actions are SMART (specific, measurable, achievable, relevant and time-bound).

Ensure that all actions are cross-referenced in the main text. Some departments also cross-reference their actions in their action plans back to the main submission.

For Gold, it's important to present the previous Juno/Athena SWAN action plan with an additional "progress" column in which it can be briefly summarised how each action has progressed. Where new processes and procedures have been developed as part of the delivery of the old action plan, ensure that they are referred to in the submission: don't rely on assessors using the action plan report as evidence of good practice in place.

Summary of tips for the **Gold** action plan



DO

ensure that all actions flow from the self-assessment and evidence base.

DON'T

include any on-going actions. Reframe these within a specific reporting cycle.

DO

ensure that responsibilities for actions are spread over a wide range of people.

DO

ensure that all actions have measurable targets/success measures.

DO

ensure that there are sufficient resources in place to allow the action plan to be taken forward. Giving additional tasks to one or two members of staff who have already undertaken a significant amount of work may not be the most effective way to make progress.

DON'T

have all of the actions starting at the same time. Ensure that the start dates, as well as the target dates, are phased.

DON'T

ignore modifying the action plan if the initial actions are found to take longer to complete than planned. If the initial actions are taking longer, others should have their starting dates moved back in time otherwise resources will be stretched.

DO

ensure that the actions are phased so that the work spreads over the full four-year period of the award.

References

1. V Gibson, L Jardine-Wright and E Bateman, An Investigation into the Impact of Question Structure on the Performance of First Year Physics Undergraduate Students at the University of Cambridge, Eur. J. of Physics 36 (2015) 045014
www.iopscience.iop.org/article/10.1088/0143-0807/36/4/045014/meta
2. Leadership Foundation for Higher Education
www.lfhe.ac.uk
3. Gazing at the Future: The experiences of male and female physics and astronomy doctoral students in the UK IOP November 2015
www.iop.org/publications/iop/2015/page_65643.html
4. Mapping the Future: Postdoctoral Researchers' Experiences and career Intentions, Institute of Physics, London, 2011
www.iop.org/publications/iop/2011/page_50579.html

For further information contact:

Diversity team

IOP Institute of Physics

76 Portland Place, London W1B 1NT

Tel +44 (0)20 7470 4842

Email diversity@iop.org

www.iop.org

Registered charity number 293851 (England & Wales) and
SC040092 (Scotland)

This guide is available to download from our website and if you require an
alternative format please contact us to discuss your requirements.



The Kitemark is a symbol of certification by BSI and has
been awarded to the Institute of Physics for exceptional
practice in environmental management systems.

Certificate number: EMS 573735