The Teaching Excellence Framework: technical consultation for year 2

A response from the Royal Society of Biology to a consultation from the Department for Business Innovation and Skills

July 2016

Royal Society of Biology

The Royal Society of Biology (RSB) is a single unified voice for biology: advising government and influencing policy; advancing education and professional development; supporting our members, and engaging and encouraging public interest in the life sciences. As a professional body we represent a diverse membership of individuals which includes a high proportion of academics within higher education institutions (active in teaching and research), students and bioscience employers.

We have received contributions to this response from our individual members, committees and special interest groups including the Heads of University Biosciences (HUBS) and the Biology Education Research Group (BERG). We have also received contributions from other bioscience based learned societies and our member organisations[1] - specifically of note include The Physiological Society, the Biochemical Society, the British Ecological Society, Science and Plants for Schools, Microbiology Society and the British Pharmacological Society.

The RSB are providers of a number of initiatives that support higher education institutions, their staff and students:

- We offer our members who are active in teaching the opportunity to join the Chartered Science Teacher (CSciTeach) professional register[2] under licence from the Science Council. This register recognises subject specific teaching excellence within the sciences. The qualification has been mapped against Senior Fellowship of the Higher Education Academy (SFHEA). For teaching academics who hold SFHEA there is a fast track route available for achieving CSciTeach. To retain CSciTeach, teachers must demonstrate their continued commitment to engaging with professional development[3] and reflecting upon their practice.

- Through our degree accreditation[4] processes the RSB ensures that accredited programmes enable students to develop the skills needed by employers alongside strong academic knowledge and practical skills. The process supports the bioscience community to strengthen and improve their teaching and the outcomes for bioscience students.

- We offer training and events that support teachers in higher education including a yearly residential conference co-ordinated by our special interest group the Heads of University Biosciences which focuses on teaching and learning[5].

[1] Organisation members of RSB https://www.rsb.org.uk/membership/organisational-membership/full
[2] Chartered status http://www.rsb.org.uk/careers-and-cpd/registers/chartered
[3] Professional development http://www.rsb.org.uk/careers-and-cpd/cpd; http://www.rsb.org.uk/images/RSB_learning_for_life.pdf
[4] Advanced Accreditation and Degree Accreditation http://www.rsb.org.uk/education/accreditation
[5] Heads of University Biosciences events http://www.rsb.org.uk/education/hubs/hubs-news-and-events

Charles Darwin House, 12 Roger Street, London WC1N 2JU Tel: +44 (0)20 7685 2550 info@rsb.org.uk
www.rsb.org.uk

- We have developed a framework[6] to support academics progress on a bioscience teaching focused career pathway. It points towards the support that the RSB has for teaching academics as well as suggesting areas where they can collect evidence to use in a case for promotion based upon their teaching.
- In addition we recognise excellence in bioscience teaching with our annual Higher Education Bioscience Teacher of the Year Award[7].

Implementation of the Teaching Excellence Framework will be challenging and we are pleased that the Department for Business Innovation and Skills has been actively engaging with the higher education sector. We hope that this will continue throughout further trialling and development stages.

Executive Summary

- The Royal Society of Biology is supportive of the overarching aims to **raise the status** and **standard of teaching**, better **support teachers** in higher education (HE) and **increase transparency** for students, teachers and employers.

- We are positive about the emphasis on **maintaining the link between teaching and research**. For the ever progressing field of the biosciences, it is vital for teaching to be informed and influenced by the latest research.

- We agree it is important that **teaching academics engage with scholarship** around the teaching of their subject to ensure that concepts, content, theory and practical work are taught in the best way to facilitate learning. **Innovation in teaching** should be encouraged, as well as within research.

- We are pleased that the TEF will build on processes and the expertise that is already in place such as through **Quality Assurance and Accreditation** which support the sector.

Areas of Concern

1. Metrics

- There is an over-reliance on the core metrics, especially those based on student satisfaction. **Student satisfaction data does not represent a good proxy of teaching excellence**[8] and emerging evidence suggests that it can be biased.

- As highlighted within the Wakeham Review[9] the **employment outcomes data is completely insufficient at present**. It should not be used for establishing any causal links with teaching quality.

- The metrics that have been suggested should not be forever fixed. It is important that they **evolve** with the TEF as additional information becomes available.

---

[6] Higher Education Teacher Career Progression Framework https://www.rsb.org.uk/images/HE_Teaching_careers_progression_document_08.02.2016.pdf

[7] Higher Education Bioscience Teacher of the Year Award http://www.rsb.org.uk/get-involved/awards-and-competitions/he-teacher-of-the-year

[8] Boring, A., Ottoboni, K. and Stark, P. (2016) Student Evaluations of Teaching (Mostly) Do Not Measure Teaching Effectiveness https://www.scienceopen.com/document/vid/818d8ec0-5908-47d8-86b4-5dc38f04b23e?7

[9] Department for Business Innovation and Skills (2016) Wakeham review of STEM degree provision and graduate employability. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/518582/ind-16-6-wakeham-review-stem-graduate-employability.pdf

- Time needs to be taken to develop the metrics and learn what does or does not give an accurate reflection of an Institution's department / discipline before there are **consequences associated with the use of the metrics**.

2. **TEF levels**
   - The **descriptors for the TEF levels are currently meaningless**, they do not explain what it means to have achieved each level. The differentiators between excellent and outstanding are purely semantic.

   - The suggested rating of "meets expectations" does not convey the high standards that have been met at this level. This will be **seriously damaging for the UK's international reputation** as being an exceptional provider of higher education.

   - We believe the outputs of the TEF will be of limited value to students whilst it is at an institutional level. The **outputs will need to be at a discipline level** before it can help students to make **informed choices** regarding degree programmes.

3. **Timing**
   - Although we are glad to see the time frame for implementing the TEF has slowed down, we would like to see it further postponed to enable **time to take into consideration the findings from the TEF technical response**, and how they can inform the TEF moving forward. It is concerning that members for the TEF panels are being recruited prior to the TEF consultation closing.

   - We recommend that **more time be allocated for trialling/piloting** the process as it is a huge undertaking for the sector. Time is required to allow institutions and the assessment teams to learn about and adapt to this new system.

4. **Burden**
   - We remain concerned about the **significant level of administrative burden** that the TEF will place on teaching academics impacting on the time available for teaching and research.

Question 1: Do you agree with the criteria proposed in Figure 4?

The Royal Society of Biology (RSB) supports the three areas of focus in principle (listed in the 'Aspect' column) and supports the ability for higher education providers to provide a wide variety of evidence demonstrating how effective they are at meeting the educational needs of all students.

However, it is essential that the use of core indicators is accepted by all parties as being effective, clear, robust measures – some are not. The Wakeham Review[10] and Shadbolt Review[11] note issues with employment data and the Higher Education Statistics Agency are in the process of conducting a review[12] which could inform future versions of the TEF. Student satisfaction data also does not represent a good proxy of teaching excellence[13] and emerging evidence suggests that it can be biased.
Lessons should also be learnt from the quality assurance systems in other sectors. For example, the measures within healthcare have developed over time and use a wide variety of sources of data to inform their ratings[14]. Allowing for additional 'non-prescriptive' or 'non-core' evidence is an opportunity for institutions to contribute to the continued improvement of TEF. These additional 'novel' evidences need to be assessed carefully to ensure they are valid measures of teaching quality with no potential for gaming. Those that are valid and can't be gamed should be shortlisted for incorporation into future TEF core metrics. We suggest a periodic review involving all stakeholders to ensure the most appropriate metrics are used in light of newly emerging evidences.

Contextual information is vital alongside any metrics used. We acknowledge that research impact cannot be measured through metrics alone and the same must be said for teaching.[15]
As noted in our response to the green paper, only a TEF implemented and scored at the discipline level, rather than institution level, will be meaningful and of any use to prospective students and employers.

Teaching Quality

- The most important resource that a university has for the delivery of excellent high quality teaching is its teaching staff. The contribution that individual staff make, supported by suitable infrastructure and a well devised teaching programme, should not be underestimated. Excellent high quality teaching ultimately relies upon an institution recruiting, developing and supporting an excellent teaching workforce.

- We are pleased that additional time has been provided for the implementation of the TEF but it would be beneficial to extend it further to properly trial the proposed metrics. It is important to see if the metrics can provide an accurate representation of the quality of a course/discipline before a link is made to any incentives. Any metrics that are decided upon also need to be able to evolve along with the TEF, so that as additional strategies for measuring the outcomes of higher education are

[10] Department for Business Innovation and Skills (2016) Wakeham review of STEM degree provision and graduate employability. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/518582/ind-16-6-wakeham-review-stem-graduate-employability.pdf
[11] Shadbolt Review of Computer Sciences and Graduate Employability (2016) https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/518575/ind-16-5-shadbolt-review-computer-science-graduate-employability.pdf

[12] Higher Education Statistics Agency (2016) Fundamental review of destinations and outcomes data for leavers from HE https://www.hesa.ac.uk/NewDLHE_Consultation
[13] Boring, A., Ottoboni, K. and Stark, P. (2016) Student Evaluations of Teaching (Mostly) Do Not Measure Teaching Effectiveness https://www.scienceopen.com/document/vid/818d8ec0-5908-47d8-86b4-5dc38f04b23e?7
[14] Darian L. HEPI (2016) Designing a Teaching Excellence Framework: Lessons from other sectors. http://www.hepi.ac.uk/wp-content/uploads/2016/02/Hepi_Louisa-Darian.pdf
[15] Wilsdon, J., et al. (2015). The Metric Tide: Report of the Independent Review of the Role of Metrics in Research Assessment and Management http://www.hefce.ac.uk/media/HEFCE,2014/Content/Pubs/Independentresearch/2015/The,Metric,Tide/2015_metric_tide.pdf

developed, they can be incorporated. The current indicators need careful consideration as they only offer a loose and potentially biased proxy of teaching quality.

- Reviewing teaching quality at the institutional level will be of limited use to students and employers as the level of detail needed to make informed choices will only be available once the TEF works at discipline level. We therefore strongly support this future development as completely necessary to fulfilling the purpose of TEF.

Teaching provides effective stimulation and challenge and encourages students to engage

- We are concerned that with the current focus of the metrics there will be an over-reliance on the student survey to provide evidence of teaching quality. With the NUS opposed to the increase in tuition fees that the TEF would bring, students could be encouraged to boycott the survey[16] or may not respond positively in order to ensure that fees did not increase. There is the potential for gaming of the system and we would like clarification on how this will be accounted for.

- We are apprehensive of the use of NSS data for the purposes of the TEF. Instead of embracing the diversity of the sector the TEF may inadvertently stifle creativity and encourage academics to teach in formulaic ways to achieve 'guaranteed' positive NSS feedback.

- We agree that teaching should provide "effective stimulation and challenge and encourage students to engage" but are concerned with the panel looking for evidence that "students report high levels of satisfaction with teaching and are sufficiently challenged" because challenge and satisfaction do not always correlate. Students may be unsatisfied due to the challenging nature of a degree; however, the level of challenge may be entirely appropriate and required by the subject curriculum. Alternatively, students may be satisfied with a faintly challenging degree which may not be valuable in terms of academic quality and employability. Particularly of concern for the biosciences, is the potential for the "dumbing down" of biology with a reduction in maths and chemistry content to appease students. Students rarely get to compare provision at different institutions and much of this satisfaction rating will relate to institutional management of expectations and relationships with teaching staff.

- The timing of the NSS survey is unhelpful, as students may only appreciate the value of the 'stretch and challenge' of their courses once they are in graduate employment.

- We are concerned student evaluations are at serious risk of conscious and unconscious bias. As noted in our response to the green paper[17], there is emerging research that suggests that student evaluation of teaching disadvantages female teachers, and this bias varies by discipline, student gender, and other factors[18]. If feedback is to be meaningful, from both the NSS and from students that participate in assessment panels, it is essential that there is appropriate support, training and guidance in unconscious bias.

- Students as key stakeholders and "consumers" need to have an input into this process, however we suggest that a great deal of thought needs to be given to the methodology and would welcome further information from BIS on how they will take account of gaming and the other issues we identify.

---

[16] The Times Higher Education Supplement (2016) "NUS encourages students to 'wreck' the TEF with NSS boycott" https://www.timeshighereducation.com/news/national-union-of-students-to-encourage-students-to-wreck-the-teaching-excellence-framework-with-national-student-survey-boycott

[17] RSB (2016) Royal Society of Biology response to the Business Innovation and Skills Green Paper: Higher Education: teaching excellence, social mobility and student choice https://www.rsb.org.uk/images/FINAL_RSB_Green_Paper_Response_Jan_2016.pdf

[18] Boring, A., Ottoboni, K. and Stark, P. (2016) Student Evaluations of Teaching (Mostly) Do Not Measure Teaching Effectiveness https://www.scienceopen.com/document/vid/818d8ec0-5908-47d8-86b4-5dc38f04b23e?7

- We are pleased to see that institutions can submit evidence that references teaching observer schemes. It is important that this evidence demonstrates that schemes are being successfully used to enhance teaching quality and support teachers to improve and share good practice. There are however concerns that its role as a "critical friend" supporting teacher development could be undermined by the perceived need to demonstrate that observations support that the teaching is always excellent.

- We are concerned that attempting to generate a competitive market in higher education may diminish the collaborative nature of teaching where sharing good teaching practice should be strongly encouraged and rewarded.

- To achieve RSB degree accreditation, intuitions must demonstrate that their programmes are meeting six key criteria, one of which is "developing creativity and innovation"[19]. Therefore accredited courses would exemplify that they are positively engaging in this area. It is essential that providers are not penalised if initiatives are not always a success, as there is always some inherent risk in piloting new ideas. Teaching in higher education institutions should encompass a variety of diverse approaches to meet the diverse needs of the student body.

- We would like to see more encouragement for teaching academics to engage with educational scholarship to support them to facilitate the best teaching and positive learning experiences for students. Teaching staff can be excluded from scientific conferences and there are few professional support mechanisms in place. Where they do exist, provision is often patchy. Learned Societies are increasingly meeting this need, e.g. the BES has a dedicated HE teaching conference that brings together discipline-specific teachers from across the UK and internationally to share good practice. The success of such schemes will depend on how professional development of teaching based staff is valued, supported and funded. The Biology Education Research Group (BERG)[20] provides a network of education researchers which can support collaborations between education researchers and teaching academics, as well as a means of sharing good teaching practice. Through the Heads of University Biosciences spring meeting which has a teaching and learning focus, innovative teaching practice is shared when the finalists for the Higher Education Bioscience Teacher of the Year award present their teaching case studies. Engagement with these groups may again demonstrate that individuals within institutions are committed to improving teaching practice.

Institutional culture recognises and rewards excellent teaching

We believe that it would be an extremely positive outcome of the TEF if there was better support, recognition and rewards for teaching academics who are making a positive impact on their students' learning within institutions. To facilitate this it is important that institutions have a structure in place to support the career progress of teaching academics. Staff must have access to professional development opportunities and time available to reflect upon their practice. The 2014 report by the Academy of Medical Sciences, The Physiological Society, Heads of University Biosciences and the (Royal) Society of Biology on the status and valuation of teaching indicated that teaching is undervalued in comparison to research[21]. We, as well as other bodies, offer some positive initiatives that could be utilised in institutions to support the recognition of teaching excellence which include the following:

- The RSB offers recognition of expertise in bioscience-specific teaching through the Chartered Science Teacher (CSciTeach) professional register[22], under licence from the Science Council. Individuals must provide evidence of continued commitment to professional development in order to

[19] Advanced Accreditation and Degree Accreditation http://www.rsb.org.uk/education/accreditation
[20] The Biology Education Research Group https://www.rsb.org.uk/education/berg
[21] Improving the status and valuation of teaching in the careers of UK academics http://www.rsb.org.uk/images/SB/Improving_the_status_and_valuation_of_teaching_in_the_careers_of_UK_academics_WEB_version.pdf
[22] Chartered status http://www.rsb.org.uk/careers-and-cpd/registers/chartered

maintain chartered status. We have increased access to this through allowing Senior Fellows of the Higher Education Academy (HEA) apply for a fast-tracked process.

- We have developed a framework[23] to support the career progression of higher education bioscience teachers. It identifies areas where they can demonstrate their expertise as a teacher in order to put forward a case for promotion. The framework also points towards support and resources that the RSB has to offer, such as CPD events, training, networks, online resources and publications.

- The Heads of University Biosciences (HUBS), a special interest group of the RSB, offers a number of conferences and events that are aimed at supporting teaching academics. This includes the Spring Meeting which focuses on teaching and learning topics in addition to their grant funding of an annual workshop series hosted and delivered by universities across the UK.

Course design, development, standards and assessment are effective in stretching students to develop knowledge, skills and attributes that reflect their full potential

- Given the fast-evolving nature of the biosciences, it is extremely important that teaching is research-informed. This should be enshrined in TEF and clearly visible in assessment criteria.

- Bioscience courses are popular and often have large cohorts with large class sizes. It is implied that smaller classes equate to better teaching but this is not necessarily the case where larger classes can be accommodated with different teaching strategies. In some cases, class sizes may be small because the course is unpopular rather than due to a conscious decision to reduce the class size for a particular purpose.

- For many bioscience courses, the number of teaching hours is high to facilitate the combination of theory, practical and field based learning expected yet distance learning may not involve any direct contact hours and can still be highly effective. As the biosciences are inherently practical subjects, it is essential to look at the practical work as a core component of the contact time and taught content, as well as the development of research skills through individual investigative work.

- The Wakeham Review[24] highlighted the employability and development benefits of education that are combined with work experience or integrated learning. These benefits have long been recognised, and the 2014 UKCES-Universities UK "Forging Futures" report[25] demonstrated this through various case studies, but highlighted key barriers such as the need for better brokerage and implementation of long-term relationships. The Shadbolt Report[26] survey findings indicated that "*employers who believed work experience to be 'critical' were only slightly more likely to offer work placements than employers who did not value it at all, indicating that more could be done by employers to offer the work experience they value so highly*". Strategic course design in collaboration with employers where appropriate is an area of huge potential, but one that is hampered by a lack of clarity and access, and potentially a mismatch in cultural understanding. Support through active development of best practice

[23] Higher Education Teacher Career Progression Framework https://www.rsb.org.uk/images/HE_Teaching_careers_progression_document_08.02.2016.pdf

[24] Department for Business Innovation and Skills (2016) Wakeham review of STEM degree provision and graduate employability. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/518582/ind-16-6-wakeham-review-stem-graduate-employability.pdf

[25] UK Commission for Employment and Skills and Universities UK (2014) Forging Futures: Building higher level skills through university and employer collaboration. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/356749/FF_FinalReport_Digital_190914.pdf

[26] Shadbolt Review of Computer Sciences and Graduate Employability (2016) https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/518575/ind-16-5-shadbolt-review-computer-science-graduate-employability.pdf

guidelines and easily contactable industry representatives would support responsive, proactive and creative course design

Assessment and feedback are used effectively in supporting students' development, progression and attainment

- Assessment is intrinsically linked to learning and one does not happen well without the other. Assessments should be inclusive and accessible for all students. For feedback to be useful, students must engage with it. Any commentary on work should help a student progress, informing and impacting upon their next assignments or assessments.

Learning Environment

The learning environment forms an important part of the learning experience for students, being a supporting structure that enables excellent teaching to take place. It is important to recognise a 'one size fits all' approach to assessing this will not work.

The effectiveness of resources designed to support students' learning and aid the development of independent study and research skills.

- When choosing where to study a bioscience degree the quality of the facilities and learning opportunities on offer will play an important role. There should be the expectation that there will be adequate laboratory facilities and equipment for students to participate in individual investigative work that will develop their scientific inquiry skills. Additionally students expect access to libraries, computer suites and online support through virtual learning environments (VLE). For subjects that have a significant practical component it will be important to recognise investment in the necessary facilities for students learning.

The learning environment is enriched by linkages between teaching and scholarship, research or professional practice

- It is particularly important within the biosciences that higher education institutions build good links with industry and that business and industry representatives are involved in academic education.

- It is vital that teaching is inspired by research and the TEF must not inadvertently separate research and teaching. The bioscience sector is evolving quickly and incorporating contemporary research into teaching is essential. We also advocate teaching being informed by scholarship in education to ensure that the teaching of concepts, context and skills is the best that it can be. We strongly believe that students should be involved in real research projects and encourage the TEF to recognise evidence of when institutions are collaborating with schools, facilitating school students to do real research. Two examples of this are through the Institute for Research in Schools[27] and the Authentic Biology[28] project. Creating better links between schools, colleges, local adult education organisations, higher education institutions and employers is essential to support the educational development of our future workforce. We believe that institutions that are actively advancing these ideals should be recognised and rewarded within the TEF.

Students' academic experiences are tailored to the individual, maximising rates of retention

- It is important to ensure mutually beneficial interactions between teaching or academic support staff and students. Another evidence for this criterion could be the availability of career and further education guidance structures at institutions.

- Retention data are difficult to interpret and must be seen in context. Students in the most under-represented groups often have the lowest retention rates. Therefore the use of this metric must not perversely penalise institutions that have commendable initiatives to increase access and widen participation. These institutions may have reduced retention rates compared to institutions without

[27] The Institute for Research in Schools http://www.researchinschools.org/
[28] Authentic Biology Project http://www.authentic-biology.org/

such initiatives. For example, the Open University caters to distance learners and often offer a stepping stone onto other higher education routes. They would be seriously impacted by over-reliance on this statistic in the determination of reward.

Student Outcomes and Learning Gain

- The RSB will be interested to see the outputs of HEFCE's work on learning gains and how this can be integrated into the TEF measures. The RSB think that the suggested criteria are appropriate in relation to measuring outcomes and learning gains but the evidence suggested requires further consideration.

- Learning gain must be contextualised with consideration given to student demographics. How do you compare value added between a student with A grade entry requirements obtaining a first class degree, compared to an E grade student achieving a third class degree?

Students achieve their educational and professional goals, including progression to further study or employment

- It is important to note employment outcomes are not an accurate measure of student employability. Teaching excellence should enhance student employability, but will not necessarily enhance graduate employment, which is largely affected by external variables out of the control of teachers like the economy and regulation.

- The employability data as it stands is not fit for purpose. The Wakeham Review (2016)[29] states *"in order to develop a clearer and more sophisticated picture of why some graduates are securing better outcomes relative to others and to better understand the extent of the mismatch between the supply and demand for STEM skills, we need access to richer and higher quality data"* p4.

- Students greatly benefit from gaining work experience during placements and summer internships[22] but employers have to be willing to support students to have these opportunities.

- Many bioscience students will continue on to study at Masters and PhD level. For example the pharmaceutical sector will employ pharmacology graduates however, this sector is known to not generally employ directly at a graduate level [30]. Many of the roles in pharmaceutical companies require students to have higher degrees, or start in a Contract Research Organisation (CROs) and then work their way up.

- Bioscience students also enter a range of occupations that may not overtly use their biology knowledge but utilise the transferable skills gained during the course of their study, DHLE data only offers a snapshot of where graduates are a short time post-graduation.

Students acquire knowledge, skills and attributes that prepare them for their professional and personal lives

- We have some queries about how institutions may evidence some of the areas suggested. For employer engagement in the curriculum (which is also encouraged in accreditation) how will this be evidenced? Will there be statements, from the employers that the institution collaborates with? As previously mentioned bioscience graduates enter a broad range of occupations and it would be unfeasible for departments and institutions to link to all of these areas.

---

[29] Department for Business Innovation and Skills (2016) Wakeham review of STEM degree provision and graduate employability. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/518582/ind-16-6-wakeham-review-stem-graduate-employability.pdf

[30] http://www.abpi.org.uk/our-work/library/industry/Documents/Skills_Gap_Industry.pdf

- An evidence of demonstrating effective teaching could be a validated reliable assessment of student outcomes such as Prescribing Safety Assessment developed in partnership between the British Pharmacological Society and the Medical Schools Council. The assessment allows all UK medical students to demonstrate their knowledge and competencies in relation to the safe and effective use of medicines[31].

Positive outcomes are achieved for students from all backgrounds in particular those from disadvantaged backgrounds or those who are at greater risk of not achieving positive outcomes

- Positive outcomes will be individual to each student, and they should be broader than the achievement of a particular grade classification.

- We need to look into mechanisms that record a student's motivation for studying a degree in a certain subject and whether the outcomes of their degree satisfied that motivation. This would require a survey being taken after It might also be useful to look at the marketing of the University itself – what outcomes does it market for potential students and is this achieved?

- The biosciences are a particularly practical subject area and additional consideration needs to be taken in how programmes meet the needs and enable access for disabled students. The high number of contact hours and requirements to complete additional laboratory work can also make it difficult for students who need to take on paid work whilst completing their degree.

Question 2

a) How should we include a highly skilled employment metric as part of the TEF?

- It is important to note employment outcomes are not an accurate measure of student employability. Teaching excellence should enhance student employability, but will not necessarily enhance graduate employment, which is largely affected by external variables out of the control of teachers like the economy and regulation.

- If a metric that addresses highly skilled employment is included, consideration would need to be given to when the measure should take place. As with the DHLE data, six months after graduation is too soon to establish if a graduate has gained skilled employment as a result of their degree. Graduates who are self-employed or undergoing untraditional employment routes may not be accounted for within this.

- The status of the job market must be taken into consideration during TEF assessments. There is little sense in using employment data to downgrade an institution's TEF rating where graduate jobs available have fallen since the previous assessment.

b) If included as a core metric, should we adopt employment in Standard Occupational Classification (SOC) groups 1-3 as a measure of graduates entering highly skilled jobs?

- The SOC groups 1-3 do offer a range of skilled jobs that graduates from the biosciences could enter after their first undergraduate degree. We would expect that graduates may enter at level 2 or 3, but it is unlikely that they would be within level 1.

c) Do you agree with our proposals to include all graduates in the calculation of the employment / destination metrics?

- The RSB does think it is important to include all graduates within the metrics, however this is where contextualising information is also vital. In our green paper response we note "*where TEF assessments will take place in different years in which the economic climate can vary, impacting upon graduate employability. Interpretation of data across modes and levels must also be clear. For*

[31] https://www.bps.ac.uk/education-careers/prescribing

example, mature students taking first degrees part-time may have significant work experience such that it influences DLHE data. However, in most institutions this will be a relatively small number."[32]

- It is important that inclusion of employment / destination metrics does not push institutions to only recruit students with pre-existing characteristics / circumstance which potentially makes them more employable. It is also important to acknowledge that there are a variety of reasons that students attend higher education institutions and complete degree programmes - it will not solely be for employment purposes.

Question 3

a) Do you agree with the proposed approach for setting benchmarks?

- We have concerns around the process of benchmarking student satisfaction, non-continuation and employment destinations. There is a huge overreliance on these core metrics within the TEF which could have a hugely damaging and disproportionate impact on individual higher education institutions and the reputations of the whole of the UK higher education sector.

- When benchmarking on the basis of the subject we request further clarification on how this information will be used when working towards an institutional TEF level.

- We need clearer guidance on how contextual information on student characteristics, especially in relation to socio-economic status, will be incorporated into / influence the benchmarks. We do not wish to see the TEF become a barrier to social mobility.

b) Do you agree with the proposed approach for flagging significant differences between indicator and benchmark?

- We have serious concerns about the validity of the approach. If implemented, it will be extremely important for institutions to be able to contextualise the information if they are falling below the benchmarked standard.

Question 4: Do you agree that TEF metrics should be averaged over the most recent three years of data?

- Yes, however we note that it will be the most recent data that is useful in enabling students to make informed decisions around the course that they wish to study.

- We would like further clarification of how newer initiatives such as degree apprenticeships will fit into this landscape.

- Experience of gathering, analysing and interpreting the data is required before the metrics are used to make decisions.

Question 5: Do you agree the metrics should be split by the characteristics proposed above?

- We believe it is important that the data is made as transparent as possible.

- Splitting the data by full and part-time students will provide useful information, but in addition it may be useful to recognise whether students are studying on site or participating through distance learning. Splitting the metrics on whether the student has declared that they have a disability or not, may not prove to be particularly informative, this data would require further integration to be meaningful. There should be positive recognition for institutions that put in place appropriate measures to cater properly for students with a diversity of disabilities. We think that gender should

[32] RSB (2016) Royal Society of Biology response to the Business Innovation and Skills Green Paper: Higher Education: teaching excellence, social mobility and student choice https://www.rsb.org.uk/images/FINAL_RSB_Green_Paper_Response_Jan_2016.pdf

also be included, it is of particular interest within science technology engineering and maths (STEM) looking to increase the numbers of female students entering these fields. Also within BAME groups the gender balance is not always equal within particular disciplines.

Question 6: Do you agree with the contextual information that will be used to support TEF assessments proposed above?

- We think that the inclusion of contextual information will be hugely important.

Question 7

a) Do you agree with the proposed approach for the provider submission?

- We are pleased that there will be recognition of both quantitative and qualitative information within the submission. We would like to see continued discussion with the HE community on the amount of evidence required and what that may look like.

b) Do you agree with the proposed 15 page limit?

- It may be difficult for institutions to evidence "teaching and learning excellence across its entire provision" within the 15 page limit. For a discipline submission then this may be enough, however to cover the entire institution, this will not give much depth, indicating that the emphasis will then be on the metrics.

- There will need to be a sensible page limit but it may be something that could be trialled and decided upon during the roll out of the TEF and not fixed from the beginning.

Question 8: Without the list becoming exhaustive or prescriptive, we are keen to ensure that the examples of additional evidence included in Figure 6 reflect a diversity of approaches to delivery. Do you agree with the examples?

- Yes we are supportive of the suggested examples of additional evidence. In addition we think it may be useful to specify under recognition and reward schemes that these should be within the institution, however at an individual level that teachers should be encouraged to gain recognition externally. There should be recognition of an institution supporting their teaching academics to continue to engage with their own personal professional development encouraging teaching academics to attend teaching focused meetings and conferences and share good practice.

Question 9

a) Do you think the TEF should use commendations?

- This is not something we would currently support, without seeing how effective proposed metrics are first. We are concerned that commendations could be divisive, and produce uneven results and gaming.

b) If so do you agree with the areas identified above?

- All institutions should be aiming for the areas but in particular for the biosciences we applaud a focus on "excellence in research-led teaching". We do not want to see research and teaching divided down separate paths.

Question 10: Do you agree with the assessment process proposed?

We will be better able to comment on the process when it is at a subject-specific level, however there a number of areas identified which raise concerns:

- The timeline for the implementation of these proposals is incredibly fast. We are concerned that the recruitment process for the TEF panel members will be taking place before the response to the technical consultation has closed. It will be important to match the expertise to the final requirements of TEF which will be informed by the outcomes of this consultation.

- "TEF assessors are experts in teaching and learning in higher education" which is entirely appropriate. As the TEF is not at a discipline level, there may be issues with representation of subject expertise across the panels. Good research informed teaching will look different in different subjects and this needs to be recognised.

- All members of the panel and assessors will need to undergo suitable training to ensure that they will be able to adequately support the process and we are pleased to see that this has been included in the timeline.

- When appointing TEF assessors and panel members we would like an indication of the expected time they are expected to serve.

Question 11: Do you agree that in the case of providers with less than three years of core metrics, the duration of the award should reflect the number of years of core metrics available?

- Yes, long term providers should have the necessary information; this will mostly impact on new providers. It may be that without a track record, initially new providers will only be able to meet level one "meets expectations" of the TEF.

Question 12: Do you agree with the descriptions of different TEF ratings proposed in Figure 9?

- No. The current definitions of the TEF levels are unfortunately meaningless; they do not define what it means to be excellent or outstanding. Stating that "an excellent rating means that a higher education provider's teaching and learning is excellent" does not explain what the rating demonstrates and will be of no use to students or employers. There is no exemplification of what excellent or outstanding may look like; the differentiation between the two levels is purely semantic at the moment.

- The phrase "meets expectations" does not convey the high standards which have been met by institutions at this level through successful QAA inspections. Success in meeting the first level of the TEF must be recognised in a far more positive manner as it impacts on the UK's reputation internationally as being an outstanding provider of higher education. We would support changing this to "good"

- It also seems contradictory that excellent is not the highest rating, given it is a Teaching Excellence Framework.