Name/Organisation: Royal Society of Chemistry

Please tick the box that best describes you as a respondent to this consultation:

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Question 1 (Chapter 1)
Do you agree with the criteria proposed in Figure 4?
☐ Yes  ☒ No  ☐ Not sure

Please outline your reasons and suggest any alternatives or additions.

We acknowledge that the metrics within the technical consultation are now part of government policy. However, we remain concerned that the proposed metrics do not measure teaching quality. This was outlined in our response to the green paper. In addition, the metrics do not measure the criteria that are outlined in Figure 4 of this consultation.

It is positive that the government are consulting further for a highly skilled employment metric. The short term nature of the DLHE misses graduates who might take longer than 6 months to enter the graduate job market e.g. for travel. Therefore, the TEF should include a longer term measure of employability. The government should continue to review the metrics and their appropriateness, in particular the National Student Survey (NSS). The NSS is open to manipulation and it does not allow enough time for students to reflect on their experience.

We are a professional body with years of experience accrediting chemical science degrees. In preparing this response, we consulted with our networks that have responsibility for teaching chemistry in higher education. We would welcome greater involvement in the development of the forthcoming discipline-specific TEF assessments. This will help ensure that the process is appropriate for those teaching and studying chemistry in higher education.

The assessment criteria in theory
Taken without the metrics, the proposed criteria themselves do cover most of what we would expect. Below are some specific amendments to the criteria we would advocate:

- Within the teaching quality aspect, it is important to ensure institutional culture that recognises and rewards excellent teaching is visible in practice as well as theory. This could be made more explicit in the criteria. For example, this could be demonstrated through the suggested evidence of the contractual status of staff involved in teaching, job titles of teaching staff displaying parity with research staff, or teaching being part of an institution’s promotion criteria.
- The extent to which students achieve their professional goals may vary in institutions which have courses that lead to different types of careers. For example, chemistry graduates will go on to a greater variety of professions than dentistry graduates.
- There should be a requirement in the criteria to demonstrate adequate professional development opportunities and for there to be sharing of best practice in teaching either inside or outside the institution. Some of the evidence used to demonstrate the criteria could potentially include this but it is not written in the criteria.
- An important aspect of an individual evaluating their own teaching is the need to be reflective about their practice. A reflective approach is also part of the
assessment criteria for awarding Athena SWAN. There should be a requirement in the criteria for institutions to be reflective. Highlighting areas of perceived weakness and suggestions of actions to improve could make the TEF more likely to meet the aim of driving higher quality teaching, rather than a provider only sharing what is going well in their institution (see also question 7 for how this might relate to the provider submission)

The assessment criteria in practice
As proposed, the assessment will ultimately be holistic. Therefore it is the panel members that will determine how the criteria will work in practice and so the makeup of the panel is the key determinant to ensuring the criteria are as effective as possible. There should be some expertise on the panel from a wide range of disciplines, including practical subjects like the laboratory sciences and engineering. There should be representation on the panel from those actively involved in teaching and learning and not only professional assessors. There should also be appropriate training of the panel in order to ensure they make consistent judgements. (see answer to question 10 for more detail)

Question 2 (Chapter 3)
A) How should we include a highly skilled employment metric as part of the TEF?

It is positive that the government have acknowledged the shortcomings of the DLHE data that is taken 6 months after graduation. It is too short term and does not take into account all destinations or outcomes associated with an individual’s personal circumstances. A longer term measure of employment is particularly important for science graduates who often embark on postgraduate study.

Therefore, as mentioned in our response to question 1, we would welcome further work to develop a metric that properly reflects long-term employability. An appropriate timeframe for such a metric would be when graduates are likely to be in their second job or to have completed a PhD, approximately four years after graduation. If there is no appropriate measure currently available, then there should be work to develop such a measure.

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?

☐ Yes  ☐ No  ☒ Not sure

We agree that an additional employment metric should be included as a TEF metric.

The Standard Occupational Classification groups 1-3 would be an appropriate available measure of graduates entering highly skilled jobs. However, if the measure of SOC groups 1-3 is also taken 6 months after graduation then it is unlikely to make the employment metrics used in the TEF more useful than the current 6 month DLHE data.

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

☐ Yes  ☐ No  ☐ Not sure

Please outline your reasons and suggest any alternatives.

**Question 3 (Chapter 3)**

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

☐ Yes  ☒ No  ☐ Not sure

We acknowledge that incorporating benchmarks into the TEF process is important and we advocated benchmarking at the subject-level in our response to the green paper.

It is positive that subject of study is included as a benchmark for all three core metrics used in the TEF. There is however a risk with all the benchmarks that they will be opaque and overly complicated. The sector needs to understand and be confident in the benchmarking approach that is being used. Therefore, we would like to see a full justification for why factors have been included in benchmarking for each TEF metric (as summarised in Figure 5). Without this transparency, there is risk of a complete lack of confidence in the benchmarking approach which would undermine the whole TEF assessment process.

Since disability is not included as a benchmark for non-continuation data, care needs to be taken to make sure that universities are able to cover the additional costs resulting from the changes to the types of support for disabled students that will be funded by Disabled Students Allowances (DSAs). These overall reductions in DSAs mean that universities will now have greater financial responsibility for meeting the needs of their disabled students. Particularly in the short-term, providers may struggle to embed inclusive practices that effectively support all disabled students when a substantial portion of the costs are passed to the HE provider. This challenge may be particularly pronounced in chemistry departments due to the practical nature of the subject. It can also be challenging to use assistive technologies to make scientific formulae and specialist terminology accessible for all students.\(^2\)

Widening participation expertise needs to be fully integrated into the assessment process. Therefore we would advocate that all TEF panel members undertake appropriate training in order that they fully understand the benchmarking process, including any limitations it might have. This will ensure that the widening participation expert on a TEF panel is not solely responsible for ensuring understanding of the widening participation agenda. (See answer to question 10 for more detail on the TEF panel)

B) Do you agree with the proposed approach for flagging significant differences between indicator and benchmark (where differences exceed 2 standard deviations and 2 percentage points)?

☐ Yes  ☐ No  ☒ Not sure

Please outline your reasons if you disagree.

Whatever method is used for flagging up significant differences, the members of the TEF panel need to receive appropriate training in order to understand and appreciate what the differences mean and what limitations exist. The panel need to be aware that the approach is not without risk and they should always take contextual information into account.

**Question 4 (Chapter 3)**
Do you agree that TEF metrics should be averaged over the most recent three years of available data?

☒ Yes  ☐ No  ☐ Not sure

Please outline your reasons and suggest alternatives.

In order to be able to take fluctuations in the metrics into account, the metrics should be averaged from more than a single year. In addition, the data needs to be relatively recent. Therefore, averaging data over three years sounds like a sensible approach. However, we acknowledge that there may be circumstances where three years’ worth of data is not available.

**Question 5 (Chapter 3)**
Do you agree the metrics should be split by the characteristics proposed above?

☒Yes  ☐ No  ☐ Not sure

Please outline your reasons and suggest alternatives.

These characteristics seem appropriate.

**Question 6 (Chapter 3)**
Do you agree with the contextual information that will be used to support TEF assessments proposed above?

☒Yes  ☐ No  ☐ Not sure

Please outline your reasons and suggest any alternatives or additions.

It is important that the TEF panel are able to understand differences between the providers they are assessing. The contextual information that is proposed looks broadly appropriate. However, panel members should receive appropriate training to
ensure they fully understand what the contextual information shows before making a holistic judgement. This should include awareness of the dangers of both conscious and unconscious bias.

**Question 7 (Chapter 3)**

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

☐ Yes  ☒ No  ☐ Not sure

We have responded to A) and B) together below.

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

☐ Yes  ☒ No  ☐ Not sure

Please explain your reasons and outline any alternative suggestions.

**Length and structure of submission**

The holistic nature of the assessment is positive although the lack of structure may make the submissions difficult to follow and assess. Therefore, we would advocate that the submission should include some more structure than currently proposed.

Fifteen pages is not very long and so it would be very easy for providers to include only positive aspects in their submissions. For example, it would be very easy for one institution to argue a particular strength and another institution to argue the complete opposite as their strength, making consistent assessment difficult. There will need to be quite a lot of guidance as to the content held within the fifteen pages to make the submission more coherent and assessment more consistent. We would not want to prescribe a specific length for the provider submission but it should be long enough for an institution to appropriately reflect on their practice.

**Lessons from Athena SWAN**

There might be some lessons the TEF assessment could learn from the Athena SWAN assessment approach. The following elements of the Athena SWAN Award assessment approach should be considered in the TEF assessment:

- The semi-structured application process – could make consistent assessment between institutions easier
- The guidance document for institutions – could make consistent assessment between institutions easier
- An action plan for enhancement – could help drive improvements in the teaching quality in universities because future TEF assessments could measure progress against the action plan.

The action plan for enhancement would link to our proposal to include a requirement to be reflective within the assessment criteria (see answer to question 1 for more detail).

**Transparency and information sharing**
In order for the provider submission to be most effective, there should be consistent transparency and sharing of information:

- The way that the information in the provider submission is analysed needs to be transparent. If not, the appearance of unexplained score moderation will lead to conflict.
- The providers should be transparent about who has been involved in putting together their submission. TEF panels might consider this information in their assessment.
- The TEF Year 2 submission from a provider should be available to assessment panels for future years to enable consistency and improvements to be monitored.
- Cross-sharing of institutional and discipline level TEF submissions between different TEF panels could also be useful in the future.

**Question 8 (Chapter 3)**
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      ☐ No      ☒ Not sure

**Please outline your reasons and suggest any additions or alternatives?**

We welcome that PSRB accreditation has been included as an example of additional evidence in Figure 6. Chemistry is one of a number of subjects that accredits university degrees. The recent Wakeham review highlighted that a strong accreditation process is one of the key factors that has a positive impact on employment outcomes for STEM degree courses. We also welcome the acknowledgement of external examining in the examples. It is notable that in chemical science degrees it is often usual for there to be three external examiners whereas for some subjects there may only be one external examiner.

Since the list is not intended to be exhaustive or prescriptive it is difficult to comment in detail on the examples, however there are a few points of concern:

- Grade Point Average (GPA) is not homogenous and there should be some clarity about what is specifically meant in this case. GPA should not be looked at simplistically and there is a risk that there is an assumption that any GPA is more effective in measuring student progress than any other measure.
- It is noticeable that actual examples of evidence for learning gain are not included.

**Question 9 (Chapter 4)**
A) Do you think the TEF should issue commendations?

☐ Yes      ☒ No      ☐ Not sure

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We would not advocate commendations as there are a number of issues with how they would be assessed and awarded:

- Asking assessors to decide upon commendations is open to a significant risk of bias based upon an assessor’s prior knowledge of an institution and/or individual relationships
- The TEF panel might not have appropriate expertise in the area of the commendation to make a reliable assessment
- A provider that is very good across all areas but not quite excellent in one specific area might be penalised because they would not receive a commendation.

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

☐ Yes  ☒ No  ☐ Not sure

Please indicate if you have any additional or alternative suggestions for areas that might be covered by commendations.

It is not clear why these areas have been selected for commendations and to a certain extent they seem arbitrary. There is also a lack of clarity about who the commendations are aimed at. If the commendations are aimed at students then it is necessary for the government to conduct research of students’ views about what commendations would be meaningful. Some commendations might be a positive accolade for an institution or department but might not be meaningful to students e.g. “Excellence In the support, reward and recognition available to teaching staff”.

**Question 10 (Chapter 4)**

Do you agree with the assessment process proposed?

☐ Yes  ☐ No  ☒ Not sure

Please outline your reasons and any alternative suggestions. The proposed process is set within a relatively tight timescale, reflected in the key dates included in Annex B. Responses should be framed within this context.

The process is still vague and undefined and so it is impossible to comment in detail. Broadly there is nothing of major concern but there is quite a lot of the process that lacks clarity.

**Site Visits**

Visits are not currently proposed as part of the assessment process. If the panel require further clarity in order to determine that a submission is an appropriate reflection of teaching quality within an institution then a visit should be made. If there is no reason for further clarity then a visit might not be necessary.
We recognise that any visits might bring additional burden to the assessment process. When the TEF assessment takes place at discipline level in the future then visits should be strongly considered as part of the process. This is because a visit would be more meaningful at discipline level than institutional level.

The TEF panel
The makeup of the panel and the training the panel participates in is the key determinant to the assessment process. We advocate the employer and widening participation expertise on the panel that is currently proposed.

Beneficial additions to the panel include:
- Subject specialists
- Active practitioners
- International representation

Beneficial areas of training include:
- Widening participation training so that everyone on the panel has awareness of the widening participation agenda
- Unconscious bias training
- Training on the metrics, contextual information and the benchmark process

Question 11 (Chapter 4)
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    ☐ No    ☐ Not sure

Please outline your reasons.

Three years of data would be ideal. However, if there is less than three years’ worth of data, the award should reflect the number of years of core metrics available.

Question 12 (Chapter 5)
Do you agree with the descriptions of the different TEF ratings proposed in Figure 9?

☐ Yes    ☒ No    ☐ Not sure

Please outline your reasons and any alternative suggestions.

The descriptions as currently drafted are not useful. Excellent and outstanding are not clearly defined with the words “excellent” and “outstanding” themselves being used in their own definition. Even if a holistic judgement is being made, there should still be some more detailed information about what would identify a submission as excellent or outstanding in the guidance notes for the panel. This information should be included in the descriptions of the ratings.
We are also concerned that there have been percentages predicted for the number of providers achieving each rating (Meeting Expectations, Excellent and Outstanding). We strongly hope that this is not predefined and that the assessments are being decided by the TEF panel and might not necessarily fit the predicted percentages.

Thank you for taking the time to let us have your views.

We do not intend to acknowledge receipt of individual responses unless you tick the box below.

Please acknowledge this reply ☒

At BIS we carry out our research on many different topics and consultations. As your views are valuable to us, would you be happy for us to contact you again from time to time either for research or to send through consultation documents?

☒ Yes ☐ No

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