TRAC
DEVELOPMENT
GROUP

Supporting and understanding
financial sustainability

An assurance framework for TRAC

March 2018

1 – Executive Summary

The Transparent Approach to Costing (TRAC) Support Unit has been working on behalf of the TRAC Development Group (TDG) to better understand the governance and assurance arrangements that institutions have in place for TRAC[1]. This report provides a source of good practice reference to assist institutions and internal auditors in reviewing whether an institution is complying with the minimum TRAC requirements.

We reviewed findings from Research Councils UK (RCUK) assurance visits and considered whether common issues identified at the most recent sector-wide quality assurance process for TRAC[2] were still prevalent.

A small number of visits to institutions were then undertaken to review the governance and quality assurance processes that had supported their 2015-16 TRAC submissions. The visits also sought feedback on how the institutions had embraced the TRAC Guidance that had been updated to take account of the then new Financial Reporting Standard 102 (FRS102).

There were a number of areas where an institution may not be fully compliant with the minimum TRAC requirements, but also a number of areas where compliance was being achieved. For example, sustainability adjustments, space data allocation and Time Allocation Survey (TAS) collection methods were all robustly calculated by participating institutions – all areas that were noted to be problematic for institutions before the TRAC Guidance was streamlined in 2014[3].

There was scope for improvement within key areas of institutions' TRAC processes, including: research facility costing, repeating high-level adjustments year-on-year, and calculating space weighting factors. Two overarching issues of specific concern were the frequency and composition of TRAC oversight group meetings, and understanding of FRS102. Further detail is provided in Chapter 3.

To help institutions more critically consider the extent of assurance that exists over TRAC, a 'three lines of defence' approach is recommended to aid the development of an assurance framework. The findings from the study were discussed with TRAC practitioners at the TRAC Practitioners' Conference and via a meeting with the chairs of TRAC Regional Groups, concluding that an assurance framework and the three lines of defence were useful tools to enable a balanced and proportionate approach to ensuring compliance with the minimum TRAC requirements.

Chapter 4 explains the concept of an assurance framework and the three lines of defence approach, and Chapter 5 then provides practical guidance for institutions on how to develop an assurance framework. These chapters emphasise the importance of the oversight group as a key component of an assurance framework and explain how an assurance framework can better support the oversight group and board committee in discharging their responsibilities. An

---

[1] www.hefce.ac.uk/funding/finsustain/trac/history/
[2] www.hefce.ac.uk/funding/finsustain/trac/qa/
[3] Quality assurance and validation of TRAC (2009) www.rcuk.ac.uk/documents/documents/qavreport-pdf

example assurance framework is provided at Appendix B to help institutions visualise how key risks could be assessed.

A further output from the work undertaken has been the production of an updated TRAC assurance reminders checklist (released as Annex 2.1b to the TRAC Guidance for the first time in 2017[4]). The revised checklist provides a single source of reference to assist institutions and internal auditors in ensuring compliance with the minimum TRAC requirements. It identified the more common issues that can lead to areas of non-compliance with the minimum TRAC requirements. Read together with the TRAC Guidance, this TRAC assurance framework and the TRAC assurance reminders checklist should help institutions understand how to gain greater assurance that their TRAC methods and output are robust and reasonable.

---

[4] www.hefce.ac.uk/funding/finsustain/trac/

Contents

2 – Introduction

2.1 Background to the project

The Transparent Approach to Costing (TRAC) data is used by a wide variety of stakeholders and its use has increased in recent years. Government relies on TRAC data to inform policy and spending decisions; funders rely on it to inform funding levels, appraise value for money and monitor the impact of certain policy decisions. TRAC data is also used within institutions for a variety of purposes.

The first year that the UK higher education sector applied the new Financial Reporting Standard, FRS102, was 2015-16. Depending on an institution's operations and circumstances, FRS102 has introduced choices over certain accounting policies and volatility in the financial results. It was therefore necessary to update the TRAC Guidance in light of this. The TRAC Guidance had been updated to reflect the changes in FRS102 and, alongside assessing the governance and assurance arrangements, the TRAC Development Group (TDG) was keen to appraise whether the changes made had been appropriate.

TRAC Guidance[5] establishes specific minimum requirements for how higher education institutions should provide assurance to key stakeholders (e.g. funders and regulators) that TRAC methods are robustly applied and that outcomes are reasonable and representative.

Importantly, TRAC enables the submission of cost-based research bids to the UK Research Councils, and is used to support management in course costing, resource allocation and informing tax strategies. With such a wide variety of uses it is therefore important that the data in TRAC is robust. Institutions' TRAC processes are subject to independent scrutiny through funding councils' reviews of the TRAC data, Research Councils UK (RCUK) Funding Assurance reviews and an institution's own internal audit reviews. It has however been some time since there was a wide scale review of the sector's compliance with the minimum TRAC requirements. TDG therefore commissioned a review of TRAC governance arrangements for the 2015-16 TRAC submission period in order to understand how institutions approached the first TRAC submission completed under FRS102.

To support institutions, TDG also wanted the review to consider whether areas of non-compliance against the minimum TRAC requirements that had been identified previously had been fully addressed in the institutions visited, and whether the changes introduced to TRAC Guidance to accompany the move to FRS102 had been consistently understood and implemented.

2.2 Approach

The first phase of work was a desk-based review of the updated TRAC requirements and RCUK common findings from its Funding Assurance Programme (FAP) visits. This considered whether the common issues identified at the most recent sector-wide assurance process for TRAC[6] were still relevant for the 2015-16 TRAC submission period.

The second phase of work was a series of site visits to review institutions' governance and quality assurance processes established for the 2015-16 TRAC submission period and to consider how TRAC oversight groups adapted their approach for FRS102.

---

[5] www.hefce.ac.uk/funding/finsustain/trac/
[6] www.hefce.ac.uk/funding/finsustain/trac/qa/

2.3 How this report can help you

We have designed this report to be of interest to anyone involved with operating, overseeing or reviewing the TRAC process.

This report brings together insight from RCUK, the TRAC Support Unit and institutions. Although it did not include a large number of institutional visits, the results have been discussed with TRAC Regional Groups, and their chairs, and at the TRAC Practitioners' Conference held in September 2017.

The remainder of the report provides guidance in establishing an assurance framework for TRAC, to enable institutions to have an appropriate balance of assurances over their TRAC process. It also provides a reminder of the more common and challenging areas where TRAC compliance may not be consistently achieved.

2.4 Structure of the report

The report contains a small number of chapters that outline the more common areas where institutions may find it more difficult to be fully compliant with TRAC requirements. It also provides an assurance framework to enable institutions to develop a balanced approach to gaining assurance over their TRAC models. Finally an updated list of issues is provided for institutions to consider in reviewing their compliance with the minimum TRAC requirements.

The content of this report does not introduce any new TRAC requirements, neither does the report itself form part of the TRAC requirements. It is intended to provide good practice reference in an accessible form to assist institutions and their internal auditors in enabling compliance with the minimum TRAC requirements.

Chapters within this report focus on:

- Key areas of non-compliance
- A TRAC assurance framework
- How to develop a TRAC assurance framework.

2.5 Acknowledgements

We would like to express our gratitude to those institutions and their representatives who have given so generously of their time, skills and experience to contribute to the preparation of this guide.
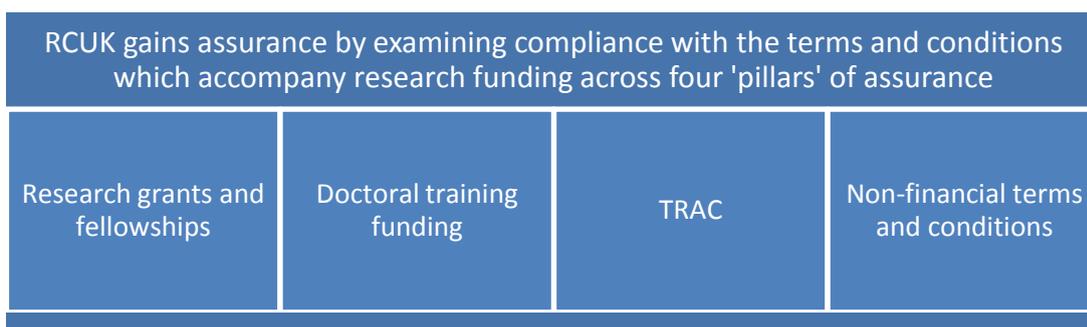
3 – What are the key areas where an institution may not be fully compliant with TRAC requirements?

This section outlines the key areas where the review found some institutions to be falling short of compliance with the minimum TRAC requirements. It is a useful source of reference for institutions in reviewing their compliance with the minimum TRAC requirements. It also outlines a new document that has been made available to further assist institutions in assessing compliance with TRAC requirements.

3.1 Findings from RCUK Funding Assurance Programme

RCUK undertook a significant review of TRAC compliance, the 'RCUK Quality and Validation of TRAC Review' (published March 2009). Since this time RCUK has considered the extent of TRAC compliance in its Funding Assurance Programme (FAP). Figure 1 below summarises the key components of the RCUK FAP:

Figure 1 – Key components of the RCUK Funding Assurance Programme

RCUK gains assurance by examining compliance with the terms and conditions which accompany research funding across four 'pillars' of assurance			
Research grants and fellowships	Doctoral training funding	TRAC	Non-financial terms and conditions

Discussions were held with RCUK Funding Assurance to understand their current assurance procedures, common findings from RCUK FAP visits[7] and key assurance priorities with RCUK. Issues identified by RCUK were not only relevant to research-intensive institutions or certain mission groups, therefore institutional visits undertaken for this report included institutions that represent the UK geographically, by peer group and by mission group.

Common TRAC-related issues from RCUK FAP visits included:

- **Research facility charge-out rates**: data used to inform research facility charge-out rates was not consistently based on auditable utilisation records.

- **Space data and weighting**: space data and weighting factors were found to be updated less frequently than required under TRAC Guidance.

- **Inconsistency of independent assurance review**: the scope and depth of review undertaken by internal auditors across the sector was variable, therefore levels of assurance varied across the sector.

---

[7] www.rcuk.ac.uk/about/aboutRCUK/aims/units/Assurance/

3.2 Findings from institutional visits

Visits were undertaken to five institutions to gain an understanding of how the TRAC Guidance changes introduced in Version 2.1 (December 2016)[8] had been interpreted, how assurance over TRAC compliance had been achieved and to explore areas where further guidance and support was required. Each visit was conducted using the same fixed scope to ensure consistency of approach and to appraise TRAC practices against key requirements in the TRAC Guidance. The profile of institutions visited is illustrated at Figure 2.

Figure 2 – Institutional visit profile.
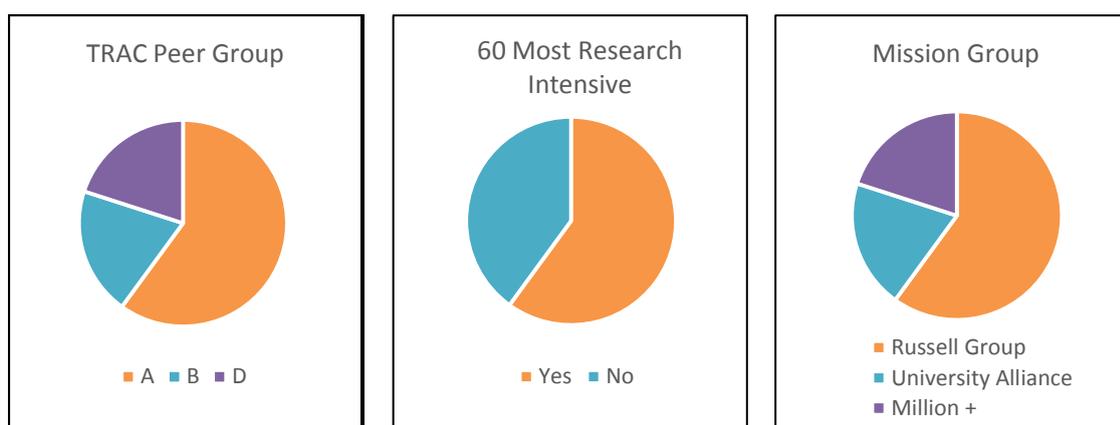
Common issues identified through the visits included:

- **TRAC oversight groups not meeting as frequently as required and with limited representation from across the institution.** Although the TRAC Guidance does not prescribe the composition or meeting frequency of TRAC oversight groups as a TRAC requirement, we noted that some institutions were organising fewer meetings of TRAC oversight groups than the expected three or four meetings per year and in some cases the composition of the groups had reduced to mostly finance department personnel. The TRAC Guidance recommends that the oversight group has representation from different parts of the institution that are involved in or benefit from the TRAC information. This is to enable appropriate challenge of the TRAC process and TRAC results, drawing on the collective institutional knowledge.

- **Technician calculations not calculated robustly.** Calculations of technician charge-out rates were not always being completed correctly and were not based on sufficiently robust data in some institutions. We identified instances where:

    - Technician surveys were not being refreshed every three years
    - Technicians included in facility costs were not being removed from the pool technician cost pool
    - Technicians classed as directly incurred (DI) were being included in the pool technician cost pool, and

---

[8] webarchive.nationalarchives.gov.uk/20170110121119/http://www.hefce.ac.uk/funding/finsustain/trac

- Some institutions classed technicians as DI, but these staff were not all being charged onto projects, which resulted in an under-recovery of costs.

These issues affect an institution's recovery of costs, which impacts on the sustainability of research activity.

- **Research facility utilisation records not auditable** – The TRAC Guidance requires facility utilisation records to be auditable. The requirement to be 'auditable' was introduced for the first time for the 2014-15 submission cycle, but instances have been found where utilisation records for facilities were not being maintained. Cases were also found where the costing of facilities was incomplete. Costs found to be omitted in some cases included space costs, energy costs, equipment replacement costs and maintenance costs. All institutions should ensure that their approach to costing facilities follows TRAC Guidance and provides a complete costing. Failure to do so reduces the institution's ability to sustain its research facilities.

- **Space weighting and space data not updated sufficiently frequently** – The TRAC Guidance allows institutions to define their own space weighting factors, provided they are assessed and signed off as fit for purpose alongside the space data refresh at least every three years. However, we identified instances where institutions have no record to support the space weighting factors that are being used. Occasionally instances arose where space data was not being refreshed every three years. A case study on allocating non-residential estates costs which provides guidance on estates weightings was produced by the TRAC Regional Groups and is available online: www.hefce.ac.uk/funding/finsustain/trac/regional/

- **Time Allocation Survey data collection** – The TRAC Guidance establishes specific requirements related to the design and operation of the Time Allocation Survey (TAS). Where institutions use a statistical method for TAS, particular attention should be given to retaining evidence of the formal support from a statistician certifying both the method and reasonableness of the results. It was found that this evidence was not always held. A further issue was noted whereby institutions may not always correctly classify continuing professional development time in the TAS. Efforts should be made to allocate this correctly between support for teaching, research and other, rather than allocating it all to teaching.

- **Workload model sign-off not operating in line with TRAC requirements** – The TRAC Guidance requires that workload data should be agreed by the academic staff member at the beginning of the year, and again at the end to confirm that the data represents their activity for the year. Queries submitted to the TRAC Support Unit have commonly arisen whereby institutions do not hold evidence of this agreement at both the start and end of the year. This is an important step as it shows agreement to the workload allocated and then validation of the results when looking back on the year.

- **Reasonableness checking not evidenced** – The TRAC Guidance helps institutions to determine compliance and reasonableness using self-assessment against the TRAC statement of requirements and the 'What could go wrong' prompts at the end of each chapter. Institutions are generally undertaking reasonableness checks in sufficient depth, but the trail of action between meetings of the oversight group should be improved. Cases were identified where TRAC results had been updated as a result of follow-up on the reasonableness checks, but it was not clear what changes had been made in the TRAC models that led to the changes in the results.

- **Cost drivers not appropriate for each respective cost pool** – The TRAC Guidance contains specific requirements for identifying suitable cost drivers that are then used to allocate

costs to academic departments and the TRAC categories. A small number of issues were identified, including: the Director of IT and the Head of Library Services had not been involved in agreeing the cost drivers used for IT and the library(ies), or evidence of their involvement had not been retained; pension costs were not always allocated using the relevant staff cost driver; and the time allocation driver had been used to allocate non-academic staff costs without evidence being retained to support that this was materially correct.

- **Limitations in value or scope of internal audit provision** – Independent reviews of compliance with TRAC requirements are typically undertaken by an institution's internal audit service. TRAC is technical in nature and TRAC models can be complex, and some institutions reported that their internal auditors found it difficult to add value and provide detailed challenge to the TRAC models. A number of TRAC practitioners also cited instances where the scope and depth of work varied greatly in the internal audit reviews that have been undertaken. TDG is liaising with the Council for Higher Education Internal Auditors to provide appropriate briefings on key TRAC matters to assist internal auditors in their work.

- **Repeating high-level adjustments in TRAC** – The TRAC Guidance permits the use of high-level adjustments where issues are identified that require adjustment in order for the results to provide a representative view of the institution. However, it has been identified that some institutions repeat these high-level adjustments year after year, which is not compliant with the minimum TRAC requirements. To ensure compliance with the minimum TRAC requirements, institutions should ensure that the underlying issues that have created the need for a high-level adjustment are identified and addressed in the following year.

- **Understanding of FRS102** – The introduction of FRS102 has increased the complexity of the financial statements for a number of institutions and introduced changes to the accounting treatment in certain areas e.g. income recognition, pensions, capital grants, endowments, service concessions and holiday accruals. Although individuals preparing TRAC returns do not need to be FRS102 experts, it is useful for them to liaise with their institution's lead financial accountants to ensure that TRAC correctly administers and allocates the income and costs that have changed following the introduction of FRS102.

3.3 Disseminating findings and conclusions

The findings and conclusions from the institutional visits were discussed with RCUK and TRAC Regional Group[9] chairs to agree how to disseminate the outcome to serve the needs of institutions, funders and other key stakeholders.

Discussions with TRAC Regional Group chairs concluded that:

- The assurance reminders checklist (see Section 3.4) should be updated annually to accompany the release of TRAC Guidance, and that the natural home for the checklist should be as a TRAC Guidance annex.

- Institutions would benefit from establishing a more structured assurance framework for the strategic oversight and operational management of TRAC. This report guides institutions through the 'three lines of defence model' (tailored to the minimum TRAC

---

[9] www.hefce.ac.uk/funding/finsustain/trac/regional/

requirements) to encourage a greater understanding of how governance and assurance arrangements can be refined to benefit TRAC assurance arrangements (see Chapter 4).

- Mapping TRAC assurance arrangements in a more structured manner would help identify gaps in assurance.

3.4 The TRAC assurance reminders checklist

The findings from the institutional visits and the desk-based research have been incorporated into an updated TRAC assurance reminders checklist released as part of the TRAC Guidance. The TRAC assurance reminders checklist brings together the following sources of reference to assist institutions in reviewing their own compliance with the TRAC minimum requirements:

- Reminders of areas where institutions may not be fully compliant with the minimum TRAC requirements, and

- The 'What could go wrong' points collated from each section of the TRAC Guidance.

The checklist is available via a web link in Appendix A and via the TRAC Guidance web pages[10].

---

[10] www.hefce.ac.uk/funding/finsustain/trac/#TRAC_Guidance

4 – A TRAC assurance framework

> *This chapter introduces the concept of a TRAC assurance framework, to assist institutions in reviewing their compliance with the minimum TRAC requirements. There are many forms of assurance that extend beyond an internal audit review. The 'three lines of defence' model is used to help institutions differentiate between the different types of assurance they have, and to consider whether the second line of defence in particular is sufficient and operating effectively.*

4.1 Why do we need a TRAC assurance framework?

It is important that there is an effective and efficient TRAC assurance framework in place to give sufficient oversight and management of the major risks to TRAC compliance.

This guide uses an assurance framework to describe the different levels and forms of assurance that exist, or should exist, over TRAC. We have found that assurance is often only interpreted to mean 'internal audit review'. However, assurance is derived from a combination of:

- The existence of a standard TRAC Guidance

- The knowledge and experience of the staff administering TRAC

- The TRAC model and protocols that are built into it

- Management review

- The role of the TRAC oversight group, and

- Independent review of the TRAC model by a third party (e.g. internal audit, RCUK, other external company).

Experienced TRAC practitioners have found that the roles of both management oversight and of the TRAC oversight group are very valuable. It is only when results are generated by the TRAC models that they can be assessed for reasonableness. The teams operating the TRAC process do not necessarily have the institution-wide overview of activity and therefore cannot identify whether results and the trends within the results are as expected. This is where the management review and TRAC oversight group are vital.

This section explains how assurance arrangements can be focused to meet the governance needs of institutions' TRAC oversight groups, providing assurance on the management of risks that could threaten the quality of TRAC data and outcomes. This in turn increases the assurance that can be provided to funders and external stakeholders.

The TRAC assurance framework should be structured around the minimum TRAC requirements. It should provide evidence to underpin the assessment of the risk and control environment for the annual sign-off of TRAC compliance (supported by independent internal audit or external review as appropriate).

Signing off the annual TRAC return is a key requirement in the TRAC cycle. The route to sign-off should incorporate evaluation of how effectively the TRAC methods have operated in practice (based upon the ongoing assessment processes undertaken throughout the preparation period), and analysis of how representative the TRAC output data is.

There are many sources of assurance in each institution that can be harnessed to support the TRAC assurance framework. Understanding these sources of assurance and their scope means

that TRAC oversight groups can determine where there may be gaps in assurance and focus more effectively on the riskier areas of the TRAC process. The structured mapping of assurance is one of the fundamental steps in establishing a TRAC assurance framework. Chapter 5 sets out the key steps for institutions to follow when mapping and monitoring assurance arrangements throughout the academic year.

4.2 Good practice for TRAC oversight groups in assuring TRAC

The board committee responsible for signing off the TRAC output (typically an audit committee or another equivalent body within the institution) is required to ensure that there are robust governance, risk management and internal control arrangements over the TRAC process which ensure that the TRAC process complies with the minimum TRAC requirements. Chapter 2[11] of the TRAC Guidance sets out the governance requirements for TRAC. This involves identifying the assurance needs, how they will be met, whether there are any gaps or overlaps in assurance, how these can best be filled and whether together these will provide the level of assurance that the minimum TRAC requirements need. As outlined earlier, key to this is the understanding that assurance is not only about the external review or audit of the process.

To support the board committee responsible for TRAC, the TRAC oversight group (or equivalent) should monitor TRAC procedures throughout the year to ensure that sufficient assurance is being planned and delivered regularly to avoid surprises in the period of finalising the TRAC return. This should also enable early decisions and action to be taken on changes in TRAC requirements, systems or the institution's activities that could require the TRAC process to be reconsidered.

The table below identifies tasks and a calendar of activities that a TRAC oversight group should undertake:

Month	Oversight group to perform:
June/July/August	• Analysis of time allocation survey data/workload plan data • Review of estates space data and weighting factors • Review of research facilities calculations • Review of technician activity with schools • Review of library and IT cost drivers
September/October	• Analysis and understanding of draft year-end accounts • Analysis of time allocations by category of staff, school/college • Review student cost drivers • Review staff FTE and headcount data • Review of postgraduate research activity

---

[11] www.hefce.ac.uk/funding/finsustain/trac/

Month	Oversight group to perform:
October/November	• Review of income analysis • Review of direct costs apportionment, particularly for postgraduate research activities when performing re-allocations across sponsors[12]. For most research-intensive institutions this is (strongly) encouraged if not an absolute requirement • Analysis of the Margin for Sustainability and Investment calculation
December/January	• Consider findings from internal auditor/external review. • Conclude reasonableness checking process • Present TRAC results to committee of the board • Approve the research indirect, laboratory estates and non-laboratory charge-out rates together with any research facility and laboratory technician charge-out rates • Validation of the annual TRAC return as compliant

4.3   What is an assurance framework?

There are a number of activities undertaken by institutions that provide assurance over the TRAC process and its compliance with the minimum TRAC requirements. However, as this project has detailed in Section 4.1 that a number of these are not commonly recognised as assurance activities, we recommend that institutions use an assurance framework to help review the assurances that they have in place.

An assurance framework is a simple document that outlines the different forms of assurance that are in place and the frequency with which the assurance activities are undertaken. All forms of assurance for TRAC are ultimately aiming to address the risk that the institution's TRAC model may not be compliant with the minimum TRAC requirements. However, there could be various sub-risks that could focus on the more common areas of non-compliance, as identified in the TRAC assurance reminders checklist[13] and may include particular issues for the institution such as structural changes, changes in people, systems or processes that could create risks to TRAC compliance.

The TRAC assurance framework provides a clear view for the TRAC oversight group as part of ensuring that there is sufficient balance and coverage of the key assurance risks. The assurance framework should be owned by the TRAC oversight group and used to assist in meeting obligations to the board committee when approving the sign-off of the annual TRAC return. The TRAC oversight group may delegate some monitoring of assurance to the TRAC manager, but the framework should be a core part of the institution's arrangements for managing risks rather than a separate exercise just to achieve TRAC compliance undertaken by the TRAC practitioner alone. It is essential that the arrangements are owned by the TRAC oversight group, and ultimately, the board committee.

The remainder of this chapter details the concept of an assurance framework and the three lines of defence. Chapter 5 outlines the steps to follow in developing an assurance framework for TRAC.

---

[12] Optional process – see Section 1.3.2.4 of the TRAC Guidance v2.2 (November 2017)
[13] www.hefce.ac.uk/funding/finsustain/trac/

4.4   Three lines of defence

To help institutions differentiate between the different types of assurance, a model known as the 'Three lines of defence' is used. This model is widely used in the internal audit profession and helps organisations identify and classify different forms of assurance.

The three lines of defence model separates different forms of assurance into three broad categories. It helps to understand how each form of assurance contributes to the overall level of assurance provided and how they can be integrated and mutually supportive. Equally if there are gaps, repetition or an imbalance in the source of assurance, this can be identified. For example, management assurances could be harnessed to provide coverage of routine operations, with internal audit activity targeted at riskier or more complex areas.

Figure 3 below provides an illustration of the three lines of defence:

Figure 3 – Three lines of defence
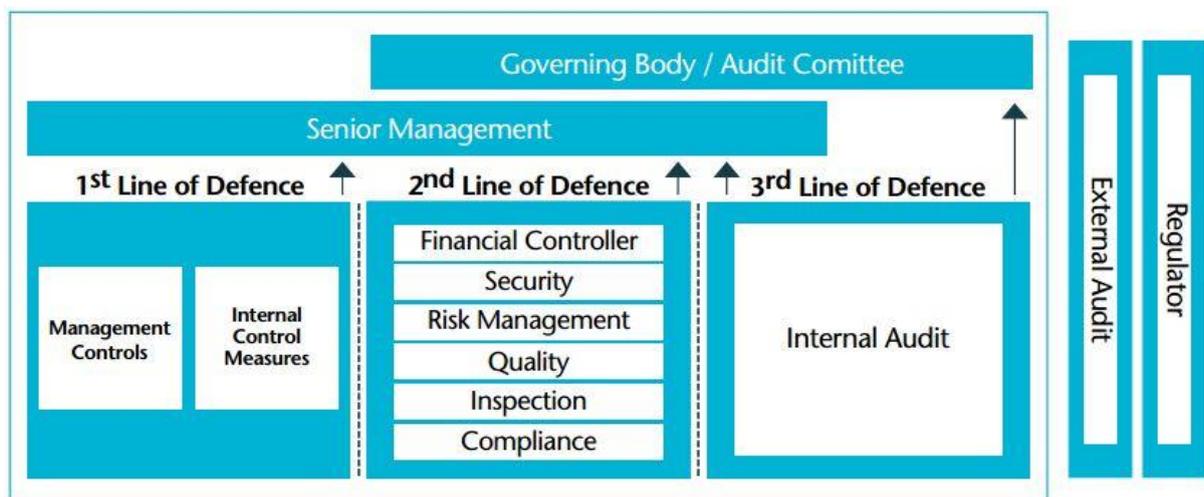
Source: Chartered Institute of Internal Auditors

An interpretation of each line of defence has been drawn from HM Treasury guidance and then explained in terms of its interpretation in TRAC:

The first line of defence

'Nature of assurance in the first line of defence:

> *'This comes direct from those responsible for delivering specific objectives or operations; it provides assurance that performance is monitored, risks identified and addressed and objectives are being achieved. This type of assurance may lack independence and objectivity, but its value is that it comes from those who know the business, culture and day-to-day challenges.'* [14]

Within the 'front-line' or operational areas, there will be many arrangements established that can be used to derive assurance on how well TRAC requirements and objectives are being met

---

[14] Source: HM Treasury 'Assurance Frameworks Guidance' www.gov.uk/government/publications/assurance-frameworks-guidance

and risks managed, for example: good policy and guidance to support the TRAC process, data quality and integrity for staff and student data, facility utilisation data, technician survey data, routine system controls and other related management information.

The second line of defence

'Nature of assurance in the second line of defence

> *'This assurance provides valuable management insight into how well work is being carried out in line with set expectations and policy or regulatory considerations. It will be distinct from and more objective than first line assurance.'* [14]

This line of defence is associated with oversight of management activity. It is separate from those responsible for delivery, but not independent of the institution's management group. This could typically include compliance assessments or reviews by line managers, the Director of Finance or Pro Vice Chancellor for Research, carried out to determine whether the results are in line with expectations and whether policy or quality arrangements are being met in line with expectations. For example, challenging the reasonableness of workload planning data and other input data, and review of compliance against the TRAC statement of requirements and TRAC assurance reminders checklist (see Appendix A). It also includes the role of the oversight group in overseeing the development of the TRAC model and reviewing the TRAC results.

The third line of defence

'Nature of assurance in the third line of defence

> *'Independent of the first and second lines of defence. Internal audit operates to professional and ethical standards in carrying out its work, independent of the management line and associated responsibilities.'* [14]

This line relates to independent and external assurance. This could be delivered by internal audit, external audit, the UK funding councils, or RCUK. This line is designed to provide an independent and objective view on the framework of governance, risk management and control. Such a review should assess whether assurance mechanisms in the first and second lines of defence are operating in their design and operation. Where possible, the review should enable the institution to direct its resources most effectively, on areas of greater risk or where there are gaps or weaknesses in compliance and/or the assurance arrangements.

Figure 4 translates the three lines of defence approach for TRAC:

Figure 4 – Three lines of defence adapted for TRAC

1st Line of Defence

TRAC Guidance

Statement of requirements

TRAC assurance reminders

Operational delivery assurance and cross checks

Reviews by heads of department

2nd Line of Defence

TRAC oversight group

Board committee

Risk management framework

Self assessment against the statement of requirements

3rd Line of Defence

Internal audit

Independent advisory services

Research council/funding council review

An example assurance framework is provided in Appendix B.

4.5 Benefits of establishing a TRAC assurance framework

The TRAC assurance framework should bring together the different forms of assurance. An effective TRAC assurance framework:

- Provides timely and reliable information on the effectiveness of the management of major strategic risks and significant control issues

- Facilitates escalation of risk and control issues requiring visibility and attention by the institution

- Provides an opportunity to identify gaps in assurance needs that are vital to the TRAC process, and to address them in an efficient and effective manner

- Provides supporting evidence for the sign-off of the annual TRAC return

- Can consolidate multiple assurance inputs, providing greater oversight of assurance activities for the TRAC oversight group and board committee, and

- Facilitates a good use of resources.

The key benefits of the assurance framework for TRAC are:

- It enables institutions to recognise the importance of having a balance in the different lines of defence

- It ensures that sufficient processes and procedures exist in the first and second lines of defence

- It ensures that external independent assurance is appropriately focused and proportionate to the risks that exist, and

- It should ensure that the institution remains compliant with minimum TRAC requirements, or that issues are identified and addressed.

5 – How to develop a TRAC assurance framework

> *This chapter builds on the detail outlined in Chapter 4 to provide some practical tips to help institutions in developing an assurance framework for TRAC.*

5.1 Developing the TRAC assurance framework

From the outset it is important to remember that assurance is sought to ensure that an organisation is operating controls over different processes to either reduce the likelihood of a risk materialising, and/or to lower the level of risk that could occur. By definition, the term assurance refers to '*a statement or promise intended to give confidence'.* Assurance is therefore not just about the internal audit review of the process. A number of steps taken by institutions provide assurance e.g. management review, inbuilt system controls, verifying cost driver data back to the source.

To develop an assurance framework it is necessary to:

1. Map out the assurances that exist against the key risks in TRAC

2. Consider the balance in the types of assurance, using the three lines of defence approach

3. Consider the frequency and age of the assurances received, and

4. Identify gaps or duplication in assurance.

Each of the above steps is explained in more detail below. An example TRAC assurance framework is also provided in Appendix B.

Step 1 - Mapping existing assurances to the key risks in TRAC

In Figure 3 the typical types of assurance that are likely to exist over the TRAC process were categorised according to the first, second or third line of defence. A template is provided in Appendix C for institutions to use in identifying the different types of assurance they already have in place. It could be the case that the institutions' sources of assurance match those outlined in Figure 3. After all, the TRAC Guidance has promulgated these for many years. But, an important consideration is whether the type of assurance will mitigate the specific risks you identify. It is easy to assume that the oversight group will ensure the results are reasonable, but it is important to consider the assurances and checks that need to exist below the level of the overall results: the results could look reasonable, but there could be an error in a spreadsheet that means that incorrect results are in fact being generated.

The institution should then identify the risks that could result in a non-compliant TRAC process or unreasonable TRAC results being submitted to the Funding Council. It can be difficult for an individual to do this in isolation; support from the Director of Finance, Deputy Director of Finance or TRAC oversight group is essential. To simplify the process, walk through the various steps in the TRAC process and consider 'what could go wrong' in each step. The more common compliance issues in Chapter 3 could be used to identify relevant risks, as could the 'What could go wrong' sections in the TRAC Guidance.

It is possible to have a large number of risks, which will over-complicate the creation of the assurance map. To overcome this, risks can be grouped. Risks should also be graded using a simple 'Red', 'Amber', 'Green' (RAG) rating. The rating applied should be an approximate assessment of the risk, which enables the institution's response or level of assurance to be considered.

It can also be helpful to consider different factors when identifying risks. Figure 5 below provides an illustration of this:

Figure 5: Illustration of factors that could create risks

Factor	Scenario	Possible risks
People	The TRAC manager is new	Lack of familiarity with the TRAC model and TRAC requirements increases the risk of non-compliance
Process	Time allocation process has changed	Staff complete the TAS returns incorrectly. Response rates may be insufficient and the TAS results are not representative
Technology	The TRAC system has been updated	The TRAC system does not operate as intended following the system update. This could create errors in the TRAC outputs
Guidance changes	Updated TRAC Guidance released	The TRAC process is not updated to comply with the latest TRAC Guidance

Figure 5 is not exhaustive, but provides a thought process that may be useful to follow in identifying relevant risks.

Further examples of risks that could be relevant for institutions to consider are:

- Insufficient reasonableness checks are undertaken on the TRAC results

- Cost driver data is inaccurate and has not been updated for the current year

- TRAC results are not subject to a challenge and review prior to submission

- The time allocation process has not achieved a representative response in line with TRAC requirements, and

- Research facility charge-out rates have not been calculated robustly and utilisation levels cannot be evidenced.

The risks and sources of assurance can be documented in an assurance framework. An example is provided in Appendix C, but institutions can adapt this to meet their particular needs.

Step 2 – Consider the balance in the types of assurance that currently exist

It is commonly found that the TRAC managers undertake a significant amount of work in preparing the TRAC return, but on occasion the level of oversight and support they receive is less than it should be. Management oversight is critical and part of the second line of defence.

A good assurance framework will balance the levels of assurance and their frequency in each line of defence. The institution should review the results of the assurance framework mapping to identify any gaps, duplication, imbalances or omissions in the types of assurance that are in place. This creates an action plan for the oversight group to oversee and enables increased assurance to be confirmed to both the Head of the institution and the board committee that is responsible for confirming that the TRAC process followed in preparing the TRAC return has complied with minimum TRAC requirements.

Step 3 – Consider the frequency and age of the different sources of assurance

Although certain assurances, particularly the third line of defence, are not necessarily required each year, it is important for the oversight group to consider when the assurances were last received and whether the frequency with which each assurance is provided is reasonable. Particular changes in personnel, system updates or substantial changes in the TRAC requirements could all be triggers to consider bringing forward an internal audit review or increasing the level of checks undertaken in that year. As established in Section 5.1.2, work undertaken by TRAC managers can be enriched by having good oversight and support through a combination of the Director or Deputy Director of Finance and the oversight group.

Step 4 – Identify gaps or duplication in assurance

Reviewing the completed assurance map should enable any gap or duplication in assurance to be identified and discussed with the oversight group. From this, a set of actions should be agreed to deliver the desired balance and level of assurance.

5.2 Regular reporting of TRAC assurance

The chairs of the TRAC oversight group and the board committee will need to ensure that they are receiving sufficient and timely assurance information on the management of risks to the TRAC process to enable them to discharge their roles.   A key component of the information required by the board committee will include reports from the TRAC oversight group. The oversight group can use the assurance framework, associated assurance reports and other outputs to routinely monitor compliance with the minimum TRAC requirements and challenge the different forms and balance of assurance on the management of key risks across the year. This will ensure that the chairs of the TRAC oversight group and the board committee have a good understanding of any significant issues in a timely fashion. From time to time, this may call for intervention to re-focus attention and implement corrective action when necessary.

The timeliness of TRAC reporting can create challenges in rectifying issues and queries that the TRAC oversight group raises. Early presentation of draft TRAC reports to the oversight group or board committee can be very beneficial in this regard. The TRAC Regional Groups have produced good practice guidance to assist institutions in expediting the production of their TRAC returns or data. 'TRAC – The easier way' is available on the TRAC Regional Groups web page: www.hefce.ac.uk/funding/finsustain/trac/regional/

List of abbreviations

DI	Directly incurred
FAP	Funding Assurance Programme
FRS	Finance Reporting Standard
RAG	Red, amber, green
RCUK	Research Councils UK
SoR	Statement of Requirements
TAS	Time Allocation Survey
TDG	TRAC Development Group
TRAC	Transparent Approach to Costing

Appendix A

TRAC assurance reminders checklist

The TRAC Development Group introduced the TRAC assurance reminders checklist (Annex 2.1b) as part of the TRAC Guidance in November 2017[15].

The checklist provides reminders of the more common areas where there have been issues with institutions complying with the minimum TRAC requirements during the previous TRAC submission cycle and a consolidated list of the 'What could go wrong' sections from the TRAC Guidance.

The checklist will be useful to the different parties involved in TRAC across each line of defence:

- TRAC practitioners will find the summary a useful reminder when gathering evidence to confirm compliance against the TRAC statement of requirements.

- TRAC oversight groups will be able to consider the specific reminders when considering which areas are deemed highest risk when considering compliance of the annual TRAC return.

- Internal auditors will be able to ensure that their reviews consider the common areas of non-compliance.

If you have any questions about the reminder checklist, or indeed any questions about the TRAC process, contact the TRAC Support Unit on 0115 935 3400 or trachelpdesk@kpmg.co.uk.

---

[15] www.hefce.ac.uk/funding/finsustain/trac/#TRAC_Guidance

Appendix B

Example TRAC assurance framework

An example assurance framework is provided below. It is indicative and not complete, but seeks to provide guidance for institutions in developing an assurance framework for TRAC. This is available to download as a standalone document for institutions to use: www.hefce.ac.uk/funding/finsustain/pubs/TRAC-af
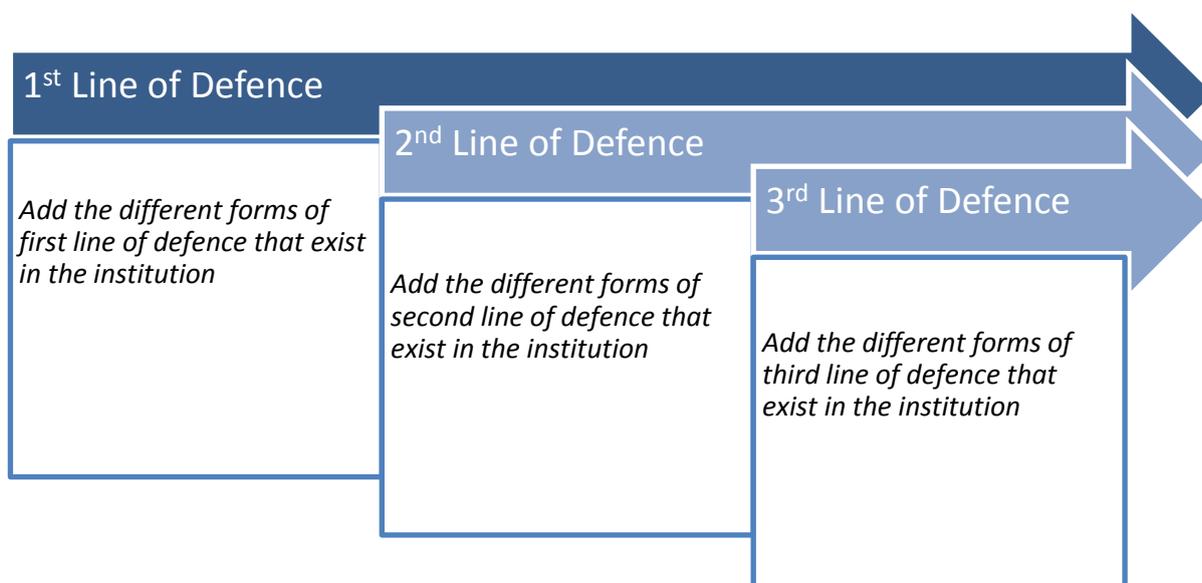
	Risk 1	Risk 2	Risk 3	Etc.
Risks	Time Allocation Survey data collection not statistically robust.	Research facility charge-out rate not calculated robustly.	Space weighting factors not accurately calculated.	
Risk rating (RAG)	Red	Amber	Amber	
Key controls (1st line of defence)	Statistician involved in design of approach and validation of the outcome.	Facility manager to maintain auditable utilisation records.	Weighting factors reviewed by estates dept. at least every three years.	
Responsibility (officer and oversight body)	TRAC oversight group	TRAC manager	TRAC manager	
Source of assurance – 2nd line of defence (management report, oversight group review)	Oversight group review of TAS results and statistician's report	None	Oversight group review of estates results and review of self-assessment against the SoR	
Source of assurance – 3rd line of defence (internal audit/ external body)	Internal audit review	None	None	
Date assurance last received by responsible committee	2nd line – July 2017 3rd line – January 2014	January 2014	2nd line – Not known 3rd line – January 2014	
Issues arising from the level of assurance review?	None	N/A	Limited assurance	
Gaps/actions	A further internal audit review is overdue. Action by: Sept 18	Internal audit review of research facility utilisation data to be introduced. Action by: Sept 18	Internal audit review of space data to be introduced. Responsibility to move to Director of Estates. Action by: April 18	

Appendix C

Three lines of defence template

The template is provided to enable institutions to identify and categorise the different types of assurance they have in place over the TRAC process. This is available to download as a standalone document for institutions to use: www.hefce.ac.uk/funding/finsustain/pubs/TRAC-af

1st Line of Defence

Add the different forms of first line of defence that exist in the institution

2nd Line of Defence

Add the different forms of second line of defence that exist in the institution

3rd Line of Defence

Add the different forms of third line of defence that exist in the institution

A reminder of the definitions for each line of defence is given below:

The first line of defence

'Nature of assurance in the first line of defence:

> *'This comes direct from those responsible for delivering specific objectives or operations; it provides assurance that performance is monitored, risks identified and addressed and objectives are being achieved. This type of assurance may lack independence and objectivity, but its value is that it comes from those who know the business, culture and day-to-day challenges.'* [16]

Within the 'front-line' or operational areas, there will be many arrangements established that can be used to derive assurance on how well TRAC requirements and objectives are being met and risks managed, for example: good policy and guidance to support the TRAC process, data quality and integrity for staff and student data, facility utilisation data, technician survey data, routine system controls and other related management information.

---

[16] Source: HM Treasury 'Assurance Frameworks Guidance' www.gov.uk/government/publications/assurance-frameworks-guidance

The second line of defence

'Nature of assurance in the second line of defence

> *'This assurance provides valuable management insight into how well work is being carried out in line with set expectations and policy or regulatory considerations. It will be distinct from and more objective than first line assurance.'* [16]

This line of defence is associated with oversight of management activity. It is separate from those responsible for delivery, but not independent of the institution's management group. This could typically include compliance assessments or reviews by line managers, the Director of Finance or Pro Vice Chancellor for Research, carried out to determine whether the results are in line with expectations and whether policy or quality arrangements are being met in line with expectations. For example, challenging the reasonableness of workload planning data and other input data, and review of compliance against the TRAC statement of requirements and TRAC assurance reminders checklist (see Appendix A). It also includes the role of the oversight group in overseeing the development of the TRAC model and reviewing the TRAC results.

The third line of defence

'Nature of assurance in the third line of defence

> *'Independent of the first and second lines of defence. Internal audit operates to professional and ethical standards in carrying out its work, independent of the management line and associated responsibilities.'* [16]

This line relates to independent and external assurance. This could be delivered by internal audit, external audit, funding and research councils. This line is designed to provide an independent and objective view on the framework of governance, risk management and control. Such a review should assess whether assurance mechanisms in the first and second lines of defence are operating in their design and operation. Where possible, to enable it to direct its resources most effectively, on areas of greater risk or where there are gaps or weaknesses in compliance and/or the assurance arrangements.