FSSG
Financial Sustainability Strategy Group

TRAC
DEVELOPMENT GROUP

Supporting and understanding
financial sustainability

Policy overview of the financial management information needs of higher education, and the role of TRAC

A report prepared for the Financial Sustainability Strategy Group and the TRAC Development Group by J M Consulting

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Foreword by Professor Stuart Palmer

After ten years of growth and relatively generous public funding, the higher education sector is facing a much more challenging future. Public finances are under a degree of pressure that is unprecedented in recent decades, and the national and international competition within the sector, and with other types of provider is intensifying. Students, Government and employers all have raised expectations of what the sector should deliver for them. The sector's operating surplus improved to 2.0% in 2007-08, but is forecast to fall again, and few institutions are investing enough to assure their future productive capacity and competitive position.

In these circumstances, the governors and senior managers of higher education institutions need robust and relevant financial management information to help them manage the sustainability of their institutions and activities. The bodies which fund them need data to assure them about accountability and value for money, and to help them make the case for future public funding.

TRAC, the Transparent Approach to Costing, is central to satisfying these two different but inter-dependent sets of needs. Senior managers in institutions therefore need to understand what TRAC is; what it can and cannot deliver for them; and how it could be further developed to meet institutional needs. However, as TRAC and its range of stakeholders have grown it has become more of a challenge for those not closely involved at a technical level to keep an overview of these issues. This understanding is necessary to ensure that TRAC is maintained in good order and retains the confidence of funders. Without it, there are risks to the level of public funding, and of the imposition of further external accountability requirements.

These concerns were among the factors that led to the establishment of the Financial Sustainability Strategy Group, chaired by Steve Smith, in 2007, and the TRAC Development Group, which I chair, in 2008. Their role is to ensure that institutions have the financial management information they need to manage their own sustainability, and that this information is used effectively by the sector to protect and enhance the sustainability of its publicly-funded activities.

The two groups can only achieve these goals for the sector if we have the confidence of institutional senior managers, and your engagement with us in these agendas is crucial. I hope this overview will assist in supporting this two-way communication.

Professor Stuart Palmer

Chair, TRAC Development Group

Introduction and key messages

a. TRAC is a costing system, which all UK higher education institutions are required to implement. TRAC has also delivered substantial financial benefits for the sector.

b. Both the current funding of teaching and research, and the avoidance of additional accountability requirements, are linked to the confidence of funders and stakeholders in the way that institutions are implementing TRAC.

c. Implementing TRAC is not cost-free. As TRAC has grown significantly in scope in recent years, it has added new requirements for institutions, which are not funded or staffed to undertake commercial-style costing. Institutions have to comply with the minimum requirements of TRAC in a way which is appropriate and proportionate in an academic culture. The sector as a whole has to maintain the confidence of funders in the integrity and fitness for purpose of TRAC data.

d. It is a challenge to manage this balance of burden and benefit. Institutions are right to resist attempts to seek inappropriate precision in measuring academic activities that are inherently imprecise, as this could damage the student experience and research. But, it is equally important that the challenges of costing academic activity are not allowed to distract institutions from the task of achieving robust data, or to encourage staff to discount or ignore messages that emerge from the TRAC data.

e. Overall, the benefits of TRAC outweigh the costs at sector level, but there are some challenges and problems for certain institutions, and in certain aspects of the TRAC costing processes. These are being addressed by the TRAC Development Group on behalf of the sector, but this requires active engagement by institutions at senior management level.

f. This policy overview is intended to assist non-financial senior managers in universities to understand and contribute to these issues at a national level, as well as making the optimum use of TRAC and other strategic financial information in their institutions. It should also be of interest to funding bodies and other organisations which fund higher education activity or have an interest in the financial sustainability of the sector.

g. This overview covers:

   • the need for financial management information

   • what TRAC is

   • what it does for institutions

   • the sustainability of institutions and activities

   • what TRAC does for public funders of higher education

   • the confidence institutions can have in the data they are producing

   • how TRAC is managed.

h. This overview updates and replaces the document published in June 2005, titled "Overview of TRAC for senior managers and academics".

The need for financial management information

1. Two reports to the higher education (HE) sector published in December 2008 illustrate the need for more sophisticated financial management in institutions[1].

    "while most institutions are financially stable in the short-term, their levels of surplus and investment are too low to assure a sustainable future, and they are facing new financial challenges and risks which threaten their ability to innovate and advance as fast as some overseas competitors."

    (Review of Higher Education Finance and Pay Data, JNCHES)

    "The sector sees its public funding is much improved, but its costs have also increased much faster than its core public funding. And it still has a legacy of backlogs of maintenance and renewal of estates, and pensions deficits. The core business of teaching and learning is now more challenging and costly, and institutions are being asked also to deliver new and more costly types of education (e.g. widening participation and employer engagement) with resources (chiefly academic staff) which are already significantly stretched.

    (The sustainability of teaching and learning in English higher education, FSSG.)

2. Higher education institutions (HEIs) operate in an increasingly marketised environment, where a lower proportion of their total income is in the form of secure public grants, and they compete to attract students, staff, funding, commercial income and donations. Many of them borrow to support investment, which cannot be financed solely from public funding. They therefore have costs of financing and risk, and they are required to make a return on their investment (surpluses) to finance their future operations. As noted above, the level of surplus achieved by the sector as a whole is currently not adequate to ensure future sustainability.

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[1] Joint Negotiating Committee for Higher Education Staff, published by UCEA. FSSG report published by HEFCE.

3. To manage in this environment, which combines public sector accountability and commercial pressures, senior managers and governors in HEIs need financial management information for a range of purposes which could be grouped into three main areas (see Figure 1):

- strategic financial management: planning, measuring and managing sustainability (key performance indicators, portfolio review, performance management, capital investment, financial strategy, risk assessment)

- operational financial management (pricing, managing recovery, cost improvement, efficiency, value for money, cash flow, performance management)

- accounting for public funding (ensuring "happy funders").

Figure 1: Requirements for financial management information in HEIs

Strategic financial management: planning, measuring and managing sustainability.

KPIs, portfolio review, performance management, capital investment, financial strategy, risk assessment.

Accounting for public funding.

Ensuring 'happy funders'.

Operational financial management.

Pricing, managing recovery, cost improvement, efficiency, value for money, cash flow, performance management.

What is TRAC?

4. The Transparent Approach to Costing (TRAC) was introduced in 1999 as a Government accountability requirement, but it also supports institutional management, which was one of the Government's objectives.

Activity-Based Costing and annual reporting

5. TRAC is an Activity-Based Costing (ABC) system, adapted to an academic culture in a way which also meets the needs of the main public funders of higher education. It is essentially a process of taking institutional expenditure information from published financial statements, and applying cost drivers (such as academic time allocation and space usage) to allocate these costs to academic departments and to activities.

6. The activities covered by TRAC are:

   a. **Teaching (T)** (analysed into publicly- and non-publicly-funded, and regulated and non-regulated within the publicly-funded);

   b. **Research (R)** (split between the main sponsor types – research councils, Government departments, charities, EC etc), and

   c. **Other (O)** (i.e. the other primary income-generating activities such as commercial activities, residences, conferences).

   d. **Support activities (S)** (such as preparation, proposal-writing, and administration) are costed separately and attributed as appropriate to these primary activities.

7. This cost attribution process is shown in Figure 2.

Figure 2: Overview of the cost attribution process
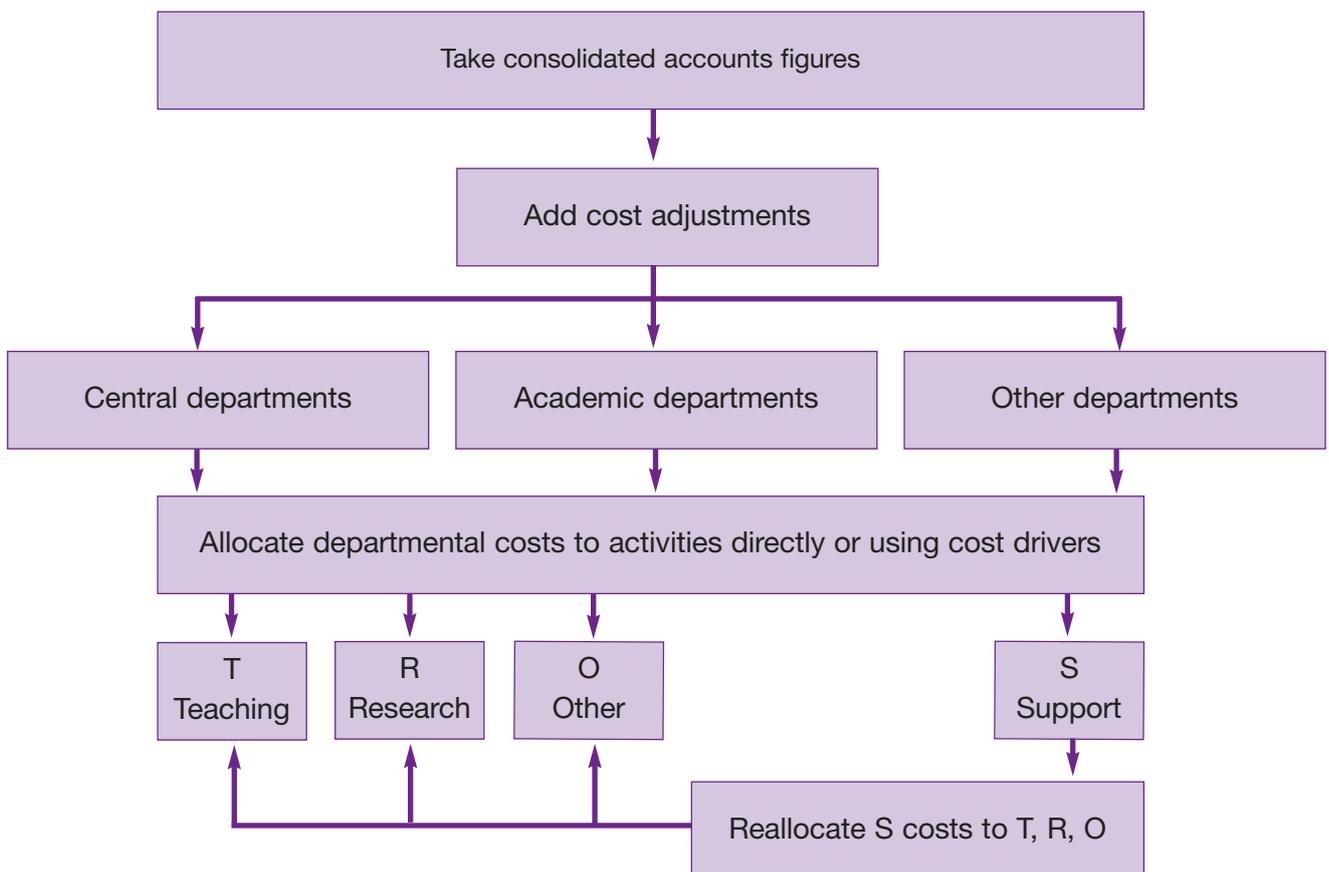
8.   Income is analysed in a separate TRAC process, so that TRAC produces a surplus or deficit position for each main institutional activity. These surplus/deficits at institutional level are reported annually to funding councils along with indirect and estates cost rates for research. (These rates are used in forecasting the full costs of research projects and informing pricing.) Some of the data provided in this annual accountability report are shown in Figure 3, at sector level, for the academic year 2007-08.

Figure 3: TRAC data 2007-08 for UK HEIs

£ million	Publicly Funded Teaching	Non-publicly Funded Teaching	Research	Other	Total
Income	10,033	2,113	6,438	4,367	22,952
Costs	10,304	1,607	8,453	3,864	24,228
Surplus/(deficit)	(271)	506	(2,015)	503	(1,276)
Surplus/(deficit) as % of income	(2.7%)	24.0%	(31.3%)	11.5%	(5.6%)

9.   Points to note from these high-level data include:

   i.   the whole sector deficit on a TRAC-adjusted basis of over 5%;

   ii.   publicly-funded teaching is in deficit to a small degree (3%), but this is off-set by a large percentage surplus on non-publicly-funded teaching (chiefly from international student fees);

   iii.   research is heavily in deficit (31%), but more detailed analysis (not shown in the above table) indicates a different level of deficit for each sponsor type. For example, the percentage deficit on EC and charity-funded research is much larger than that on research-council funded research (which is improving as a result of the full economic cost (fEC) funding introduced in 2005-06). The relative position on each research sponsor type at institutional level is a critical piece of information for university research and financial strategies

   iv.   the significant percentage surplus on Other activity (11%) is very helpful for institutional financial sustainability, but in volume terms is much smaller than the deficit on research.

10.   More information is published by the funding councils – within HEFCE's "'Single conversation' annual accountability returns" and equivalent publications issued by SFC and HEFCW.

TRAC processes and applications

11.   The process used to produce these results, known as Annual TRAC, provides the high-level information required by the Government for accountability purposes, but these are also critical to understanding the basic financial health of the higher education sector. Data on individual institutions reported to funding councils are not published, but they are fundamental for the institutions themselves to understand their own financial health. To produce the annual return, many institutions produce detailed information at the level of their own academic departments, which is helpful for internal planning and management.

12.   TRAC does not prescribe how these data are to be used internally by institutions, but the expectation of the funding councils is that institutions will have an effective financial

strategy, and that their teaching and research strategies will be informed by financial sustainability. For this to be effective, senior management teams and governing bodies need to be familiar with the main messages from the institution's TRAC analysis.

13. In addition to the Annual TRAC accountability reporting, three other TRAC applications, shown in the lower part of Figure 4, also draw upon this base of Annual TRAC data.

  • TRAC fEC is used for costing individual research projects (implemented in 2004-05 as part of the Government's reform of the dual support arrangements for public funding of research)

  • TRAC for Teaching (TRAC(T)) is being used to cost the main funding council funded teaching at subject level, with the main aim of informing the public funding of teaching (not implemented in Wales)

  • TRAC EC-FP7 is an optional costing application which can be used by institutions with EC contracts if they judge it is in their interest to do so.

14. Further details of the four TRAC applications are provided in the Appendix.

## Figure 4: The TRAC processes and outputs
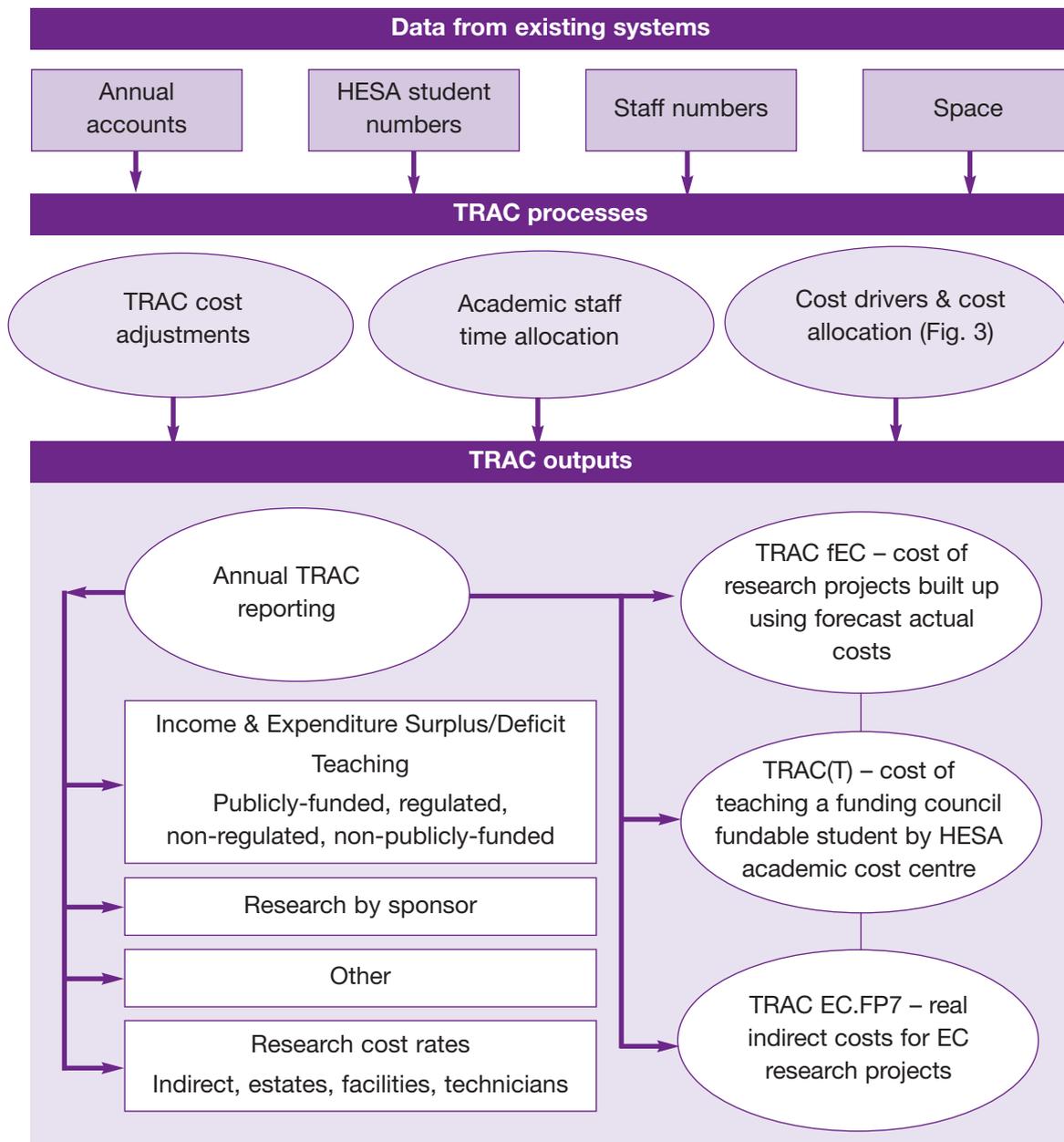
TRAC Cost adjustments

15. While most of the 1999 design of TRAC drew on experience from within the sector (for example, on academic time allocation), the cost adjustments were a significant innovation. They were designed to account for the fact (accepted by the Government) that the "real" cost of higher education activity was higher than the historic expenditure stated in most institutions' published financial accounts. This difference is due to a combination of understatement of current asset values in some institutions (depending on valuation practices); inadequate investment in physical assets (shown by backlogs of maintenance for example) and in services and support for students; and the need to allow a surplus or margin for risk, financing and development. The two cost adjustments are used as a proxy to reflect these additional economic costs of the activity. A fuller explanation is provided in the Appendix.

16. A corollary of this difference is that the "TRAC adjusted" surplus/deficit position of institutions is different from the headline surplus/deficit reported in the audited accounts – and most Finance Directors believe that the "TRAC adjusted" figure is a more reliable guide to their institution's medium-term financial sustainability. (This TRAC-adjusted figure was discussed and used in the JNCHES report quoted earlier.) On average, the TRAC-adjusted costs are about 5% higher than those in the expenditure accounts, and so the surplus/deficit figure is significantly less comforting than the headline surplus figure quoted in annual accounts. Institutional senior management teams and Boards of Governors need to understand the difference between the two figures and to take account of both in developing their financial strategy and institutional plans.

Allocation of academic staff costs

17. Most of the TRAC allocation processes are carried out by finance staff or service managers. However, academic staff time makes up the largest single element of costs and a process for robust allocation of academic effort is essential if HEIs are to know where this resource is being directed, and to plan how these costs can be funded. It is also a requirement of the funding bodies.

18. TRAC offers alternative options to HEIs, and does not require the use of monthly timesheets, as in some other professions. However, there are challenges in capturing information on the allocation of academic staff effort in a robust and meaningful way (due to non-standard hours worked, and the interactions between activities). Some institutions cope with these challenges to produce robust data in which they have confidence, but some others find it much more difficult.

19. TRAC lays down minimum requirements in terms of the range of activities to be recorded, the scope and frequency of sampling, and a process of reasonableness checks which academic managers are meant to carry out to ensure that the academic time allocation at department level is consistent with other measures such as staff workload plans and research output.

20. Some institutions are very interested in tracking the way that academic staff effort is applied for internal management purposes, and this gives added confidence in the robustness of their TRAC data. Some others do not use the TRAC data in this way, and might like to use alternative methods which relate more closely to their internal processes (such as workload management, or resource allocation). Those institutions which wish to charge academic staff costs (Principal Investigator time) to EC-Framework Programme 7 projects are required by the European Commission to maintain time-sheet recording for all academics with these grants, and TRAC EC-FP7 provides a way to do this.

21. Time allocation is therefore a complex issue, not amenable to simple or "one-size-fits-all" solutions, but it is also critical to maintaining the confidence of funders including the research councils. Because of this, the TRAC Development Group (TDG) is reviewing the possible approaches and their fitness for purpose in the light of ten years' experience since TRAC was originally implemented.

22. While institutions should treat the allocation of academic staff costs seriously, and should ensure that they and their funders are "happy" with the quality of the results obtained, everyone involved needs to recognise that allocation of academic time is not a precise science. No mechanism (including timesheets) can produce "precise" or "auditable" data. Institutions should however produce results in which they have confidence, and which they are able to use for their own strategic academic and resource planning, as well as reporting them to their governing bodies and funding councils. They are helped in this by the laws of statistics. Even though there may sometimes be significant variation or uncertainty in the allocation of time of an individual member of staff, the institutional results have been proved to be statistically robust, and therefore fit for purpose at the institutional level where they are used to influence funding and for pricing and accountability purposes.
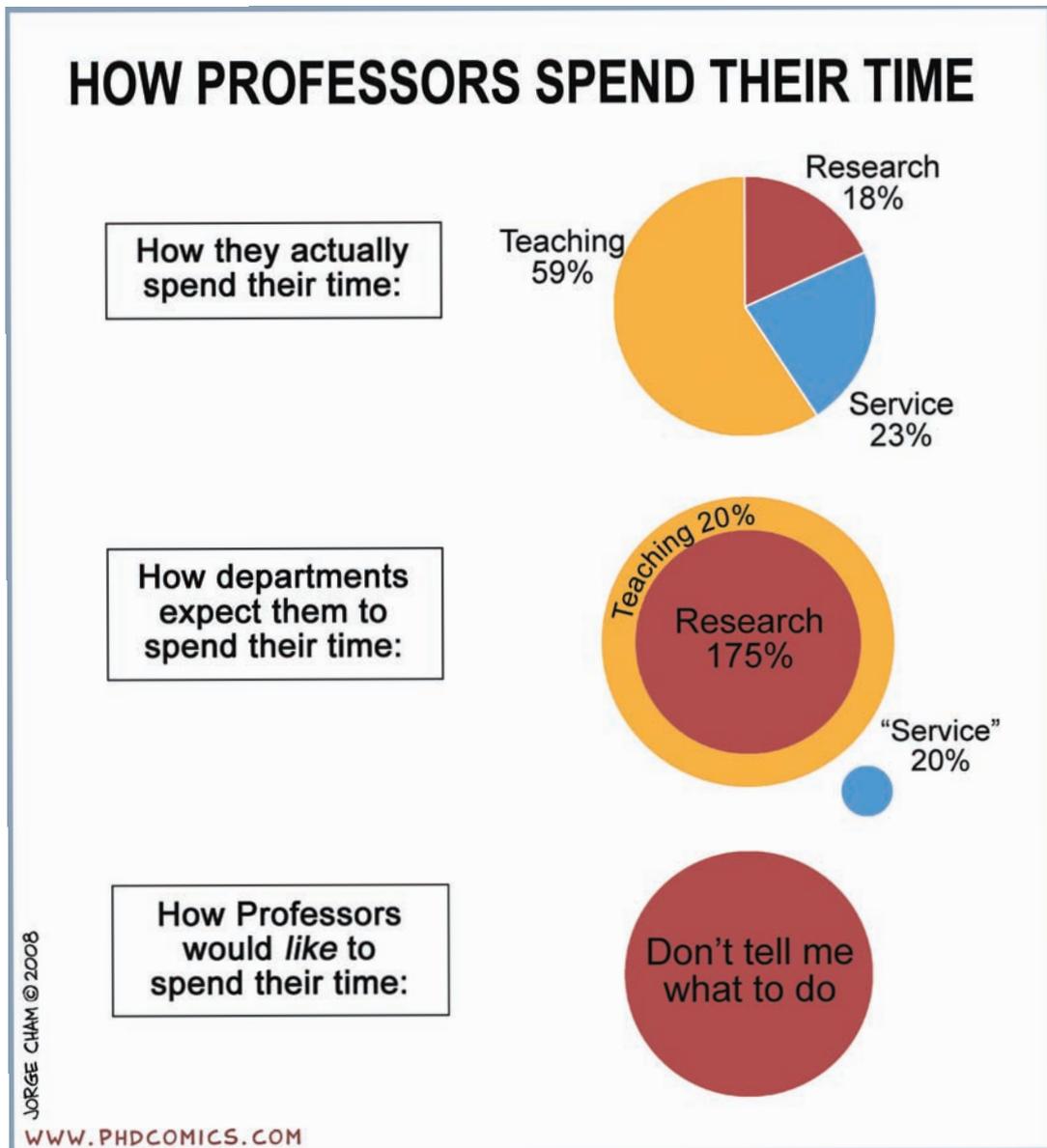
A principles-based approach with in-built flexibility

23. UK HEIs are very diverse, and there are many different users and uses of this costing information. TRAC is designed to be flexible enough to accommodate all these challenges, and to allow HEIs discretion about the precise methods they use, while still maintaining the confidence of funders. It is also designed to avoid the need for HEIs to incur the administrative burden of "full commercial costing systems", or to require academic staff to complete timesheets. (This would add to the cost of the administration of higher education, without benefit to students or to the research output of the nation.)

24. A balance has had to be struck between the requirements of funders for rigour in TRAC and the needs of institutions to minimise administrative costs. Finding the right balance is a complex task which cannot be managed solely within the higher education sector[2], but is informed by some important principles established when TRAC was designed:

    a.   materiality;

    b.   costs are fair and reasonably stated;

    c.   flexibility and choice of methods;

    d.   consistency of costing treatment;

    e.   auditability (of methods not data).

25. While there is no standard TRAC method (or software), there is a set of mandatory standards to be achieved by institutions, and these are expressed as the TRAC Statement of Requirements. They are available as a single document, which provides a check-list for institutional users. This forms a key part of the technical TRAC Guidance.
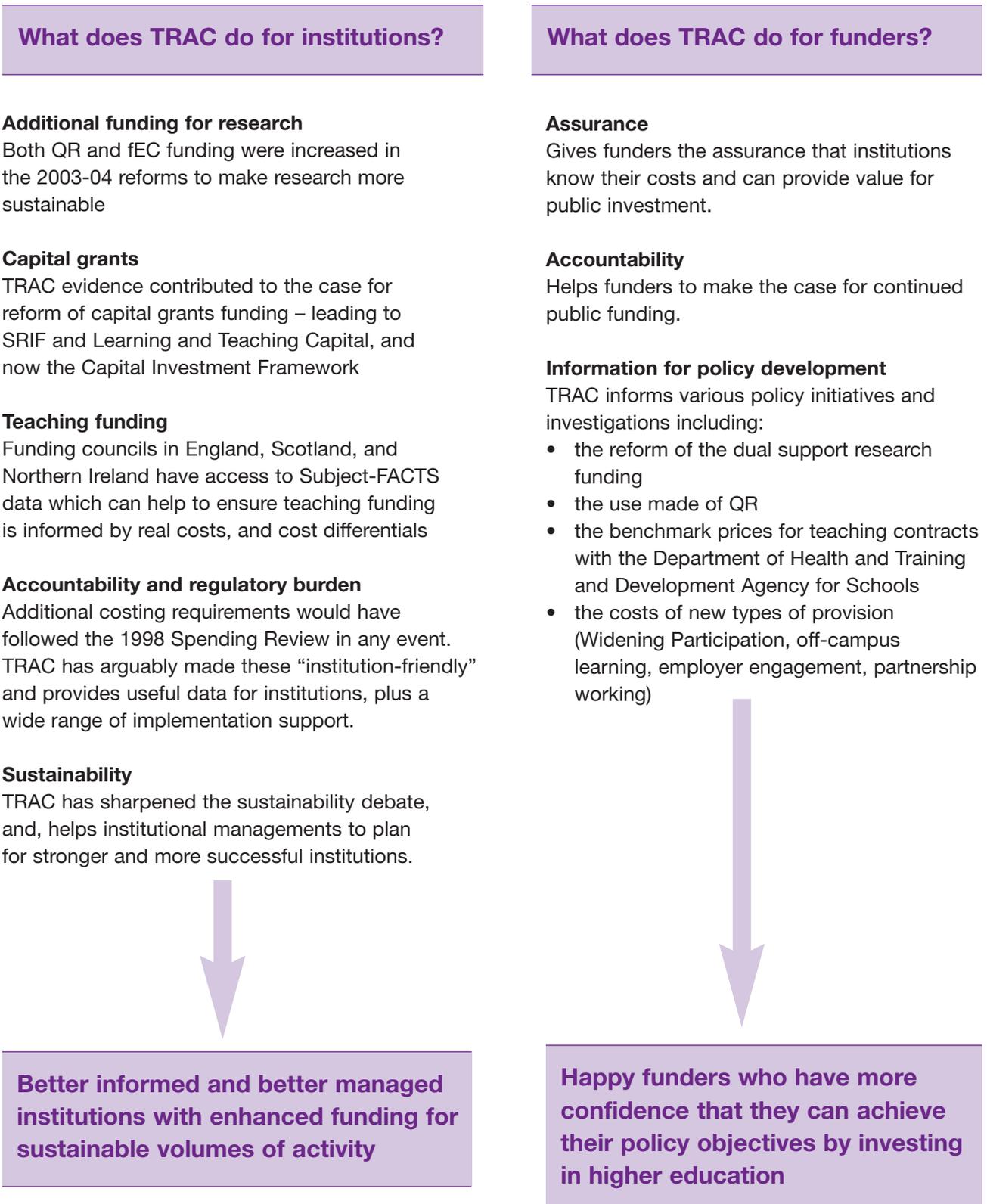
TRAC Guidance

26. The TRAC Guidance has evolved significantly since 1999, partly to accommodate the three further applications (see paragraph 13). The Guidance is on the TRAC web-site at www.jcpsg.ac.uk/guidance/about.htm. The Guidance aims to be an authoritative technical resource, intended to support practitioners (chiefly TRAC Managers in institutions, but also some other groups), and it is supported by a number of other resources available to practitioners (including a help-desk, training events, benchmarking, regional self-help groups).

27. The Guidance is large in volume terms, and complex to anyone unfamiliar with TRAC. It contains much supporting material (examples, good practice etc) and should be seen as a technical user guide for practitioners, but not as an effective way for non-experts to find out what TRAC is about. The TDG has a strategy for further development of the Guidance over the next period to make it more accessible and easily-usable by TRAC managers, and for other forms of communication with the other stakeholder groups.

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[2] Hence the broad membership of the Financial Strategy Sustainability Group, and the TRAC Development Group.

What does TRAC do for institutions?

Figure 5: So what does TRAC do for us?

What does TRAC do for institutions?

Additional funding for research
Both QR and fEC funding were increased in the 2003-04 reforms to make research more sustainable

Capital grants
TRAC evidence contributed to the case for reform of capital grants funding – leading to SRIF and Learning and Teaching Capital, and now the Capital Investment Framework

Teaching funding
Funding councils in England, Scotland, and Northern Ireland have access to Subject-FACTS data which can help to ensure teaching funding is informed by real costs, and cost differentials

Accountability and regulatory burden
Additional costing requirements would have followed the 1998 Spending Review in any event. TRAC has arguably made these "institution-friendly" and provides useful data for institutions, plus a wide range of implementation support.

Sustainability
TRAC has sharpened the sustainability debate, and, helps institutional managements to plan for stronger and more successful institutions.

Better informed and better managed institutions with enhanced funding for sustainable volumes of activity

What does TRAC do for funders?

Assurance
Gives funders the assurance that institutions know their costs and can provide value for public investment.

Accountability
Helps funders to make the case for continued public funding.

Information for policy development
TRAC informs various policy initiatives and investigations including:
- the reform of the dual support research funding
- the use made of QR
- the benchmark prices for teaching contracts with the Department of Health and Training and Development Agency for Schools
- the costs of new types of provision (Widening Participation, off-campus learning, employer engagement, partnership working)

Happy funders who have more confidence that they can achieve their policy objectives by investing in higher education

28. As an accountability measure, TRAC enables institutions to go on receiving public funding without having to meet additional accountability requirements.

29. TRAC has informed the funding of research with over £1bn annually of additional funding provided by the Government to make the UK research base sustainable (i.e. to make the existing volumes of research more secure, not to increase volumes). From 2005, the research councils have funded research projects at 80% of the TRAC full economic cost. This is a significantly higher level of funding than the previous basis, and research block grant was also increased as part of the same reform.

30. TRAC has also contributed to the policy interest in sustainability of higher education, by highlighting the need for more investment in infrastructure for teaching and research. Government has provided additional funding for capital. All institutions are now required to take account of the full costs and sustainability of their activities in their planning and management.

31. In England a large majority of institutions wished to see the funding of teaching informed by full economic costs when HEFCE consulted on this in 2005 as part of their review of their teaching funding method. The subsequent development of TRAC for Teaching (TRAC(T)) was led by HEFCE and the resulting data on the costs of teaching funded by the funding councils (the so-called Subject-FACTS) are available in England, Scotland and Northern Ireland to inform the price groups and weighting in the funding of teaching. They have already been used in specific reviews (e.g. by the Department of Health, and in studies of particular subjects).

32. TRAC is an essential underpinning of the public funding of both teaching and research, but it also provides a range of financial management information for internal management in institutions. This includes information about sustainability; about where academic effort is being directed; and about the relative contribution of different parts of institutions' portfolios (e.g. different research sponsor types; teaching in different departments). Cost information should also inform pricing strategies in a growing range of institutional activity including non-publicly-funded research, consultancy, non-regulated student fees, commercial activity.

33. As well as adding rigour and consistency to such institutional work, TRAC can also be developed to support course costing, understanding the costs of complex activities such as widening participation and partnership working, and quantifying the financial impact of new ventures or restructuring.

34. A cost-benefit analysis of TRAC was discussed by the Higher Education Regulation Review Group (HERRG) in 2005. HERRG agreed that "despite the burdens of implementing this new system, TRAC had delivered significant benefits to the HE sector".

35. So, there are clear and quantifiable benefits available from TRAC for all types of institution. However, the extent to which institutional senior management teams and governors see and use TRAC data is very variable. It is also true that TRAC has provided more direct financial benefits to research-intensive universities, and can be seen as less-directly beneficial by some institutions of other types. Developments around course costing, and the use of workload allocation models as an acceptable approach to time allocation in some institutions can respond to this, and help to ensure that the burdens of TRAC are not disproportionate to the benefits for any group of institutions.

Sustainability of institutions and activities

Defining sustainability

The formal definition used in TRAC, and adopted in the RCUK review of fEC, is:

An institution is being managed on a sustainable basis if, taking one year with another, it is recovering its full economic costs across its activities as a whole, and is investing in its infrastructure (physical, human and intellectual) at a rate adequate to maintain its future productive capacity appropriate to the needs of its strategic plan and students, sponsors and other customers' requirements.

"operating today without damaging ability to do so tomorrow" ,

or

"maintaining at least the current capacity to respond to changing demands"

36. In the current financial and economic climate, sustainability of activity and institutions is one of the most challenging responsibilities of the governing bodies and senior management of institutions. The policy awareness of sustainability, and the ability to measure progress towards it have both benefited from the introduction of TRAC.

How to measure sustainability

There is no single measure, since sustainability is about the ability of an institution to deliver its mission in a complex environment where may different customers, funders and stakeholders have an interest. The CUC Guide to KPIs[3] for governors suggests seven key performance indicators that are relevant to a high-level view of institutional sustainability, but each institution should choose its own KPIs in the light of its particular circumstances and concerns.

CUC Illustrative KPIs for institutional sustainability

1. Return on assets – (CE/CP ratio)

2. Annual spend on infrastructure compared with agreed annual requirement

3. Income growth, diversity and security

4. Student demand, achievement and satisfaction

5. Strategic relationships and reputation

6. Leadership and adaptive capacity

7. Balance of development opportunities and strategic risks

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[3] CUC Report on the monitoring of institutional performance and the use of key performance indications, CUC November 2006.

Sustainability of research

37. A major part of the funding of research is now driven or informed by TRAC costs, and as a result the reliability of the data is of great and legitimate interest to the research councils and other research funders.

38. The first TRAC data in the early 2000s showed a significant underfunding on publicly-funded research (which was shown to be substantially in deficit). It also raised the issue of the adequacy of the sector's level of investment in physical assets (the TRAC infrastructure cost adjustment was a first part of the necessary policy recognition of the importance of this issue). The Government's reform of the dual support research funding, coupled with capital grants were the policy response to this evidence.

39. However, the enhanced funding for research and research infrastructure will not, on their own, make institutions' research sustainable. TRAC data for 2007-08 show there is still a significant deficit on publicly-funded research. If this is a real deficit, it cannot be sustained by institutions in either financial or public-policy terms. It may be partly explained by the way that institutions are using this additional funding (for example to increase research volumes, or to subsidise irrecoverable costs).

40. To achieve a sustainable research base, institutions need a research strategy that (for example) considers asset utilisation; the return on different types of research; the interactions between research and teaching (which are usually joint production activities). They also need more sophisticated management information which attributes costs differently between scholarship which is a support for teaching and that which is a support to research, and between research funded by different types of sponsor. TRAC does all this if well-implemented, but if it is not used in this strategic way by institutions, it may suffer from inadequate scrutiny and reasonableness checks, which are an important part of the internal quality assurance (QA) of TRAC.

41. The research councils' Quality Assurance and Validation (QAV) process in 2008-09 (see below) has shown a significant number of institutions still have further work to do to achieve the minimum requirements of TRAC.

42. More fundamentally, the research councils' review of fEC has addressed the issue of how sustainable publicly-funded research is, since the introduction of fEC funding. This is challenging for institutions which may need to be able to show how they have used their additional funding to enhance research sustainability. Many universities have research portfolios that are still not sustainable even with fEC funding from research councils, enhanced funding councils block grant (QR in England), and capital funding. While there are some understandable reasons for this[4], this is a significant risk factor for the institutions (and for their students' learning experience), and institutional Governing Bodies need to consider these issues and the risks involved as part of a broader financial strategy for the institution. This in turn needs to be informed by robust financial management information, which includes TRAC data on surplus and deficits by different research sponsors, and performance data at department level.

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[4] including the time-lag in building up to 80% funding from research councils; other public funders still not paying fEC; and the pressures generated by the RAE and by league tables.

Sustainability of teaching

43. The sustainability of teaching is also challenging for institutions, but it is more difficult to obtain evidence on this using TRAC. This is because of two main differences from the situation with research:

   • diversity: institutions can appropriately adopt a wide variety of missions and pedagogic approaches (responding to different student needs) which means that costs can vary widely for the same subjects

   • funding is not competitive, and in the absence of a standard measure of quality equivalent to the Research Assessment Exercise (RAE), or project-level costing and funding as for research, there is no independent check on whether resourcing levels are appropriate.

44. The Annual TRAC data show that publicly-funded teaching has a small percentage deficit (3% in 2007-08), suggesting that it does not have the sustainability problems seen with research. However, this may be misleading as the TRAC data only show the historic costs (amended by the cost adjustments), and this is probably determined to a significant degree by funding rather than by what is required for sustainability. At the same time, there is widespread evidence of strains on student:staff ratios (SSRs), on contact hours, and on teaching and learning facilities, and indications from academic staff and from the National Student Survey and other sources that some aspects of the student learning experience are under severe pressure (formative assessment and tailored feed-back are most often quoted, but some international students have also commented unfavourably on the quality of infrastructure compared with their experience in the USA or Australia).

45. The FSSG study on the sustainable costs of teaching (see paragraph 1) reviewed this evidence and examined the health and sustainability of teaching by drawing on a range of sources of evidence, including case studies at English universities, and making international comparisons where this is possible. The report was sent to all Heads of Institution in February 2009, because it was considered to be central to institutions' planning for the effectiveness and sustainability of their core business.

46. A key point for institutional senior management teams is that achieving more sustainable teaching and learning is not just a matter of increasing funding (desirable though an improvement would be). Each institution has a responsibility to develop a sustainable strategy for its teaching and learning, and the report highlights some areas (such as curriculum reform, utilisation of infrastructure, and the interactions with research) where institutions can do more to make their teaching and learning sustainable within current resourcing levels. As for research, it is important that such strategies are informed by robust cost information, and this will require some institutions to give further attention to the way they are costing scholarship in TRAC – which is significantly a cost of teaching but has sometimes been reported as if it was research[5].

47. The FSSG report also provided a self-assessment tool to help institutions to benchmark the facilities and conditions (and hence the costs) they need in place for sustainable teaching in their chosen market sectors. It would be reasonable to expect that every institution would at least consider the value of using this as part of its teaching and learning strategy development.

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[5] Advice on this was circulated to institutions with Steve Smith's letter of 1 December 2008.

Sustainability of infrastructure

48. The sustainability of infrastructure is not an end in itself (physical assets in higher education could be seen as a tool to support teaching and research). There have been several reviews in recent years of the sustainability of university infrastructure and of its investment requirements. The Government has provided additional funding and the capital grants are now much more predictable and can be used more flexibly by institutions, which have the clear responsibility to manage their asset base to ensure sustainability.

49. There is still a backlog of remedial investment in the sector (although this has reduced significantly since 2001, and is more related to Teaching than to Research). There are also questions about how far institutions can afford the levels of annual investment required for sustainability. It is generally accepted that institutions need to plan to invest in the region of 4-5% of the total insured asset value of their physical infrastructure (chiefly buildings) on an annual basis if they are to maintain fitness for purpose and good maintenance condition over the medium-term. For most, this translates into a significant increase over the level of investment they have achieved on a consistent basis in the past.

50. On average, well below 50% of the capital invested by institutions is funded by public capital grants. The remainder is financed from surpluses, fund-raising, asset disposals and borrowing.

51. The current financial climate is unfavourable for all these sources of finance for university capital investment. There is a risk therefore that the progress made in recent years towards a more sustainable higher education estate may be slowed, or even reversed. This could be damaging to the quality of the student experience and to research, and also to the competitive position of UK higher education generally.

52. Equipment is an important part of the higher education infrastructure but, unlike the position with buildings, it has to date not proved possible to derive any consistent view of the adequacy of the sector's level of investment in equipment, although there is anecdotal evidence of problems here as well.

53. As with both research and teaching, improved public funding for infrastructure could be part of the answer, but this is unlikely in the foreseeable future, and the Government can justifiably note that it has already provided a generous improvement. The national reviews show that there is also a lot that institutions should be doing to make their infrastructure more sustainable. Improving space utilisation (which is generally low in the sector), increasing the income from high-cost space, and disposing of poor quality or unfit space, are all measures that can increase the return on assets and hence sustainability without the need for expensive new capital investments.

54. As with Teaching and Research, a sustainable estates and asset management strategy is required, and this needs to draw upon information from TRAC on the costs and use of different types of space. This needs to deal appropriately with aspects such as the identification and allocation of circulation and other shared space, which form a significant cost, yet are not well understood in many institutions as they have often been simply allocated on an academic staff time basis.

What does TRAC do for funding stakeholders?

55. The main stakeholders who have an interest in TRAC (broadly grouped by their particular interest) are shown in the table below (this is intended to illustrate the broad range of stakeholders rather than a definitive list or categorisation). The stakeholders who are most directly involved with TRAC – funding councils; research councils; Universities UK and GuildHE; and institutional senior management teams and Governing Bodies – have an interest in most or all of these areas.

Figure 6: Types of stakeholder

Funding/accountability	Policy
Department of Health	BIS (formerly DIUS)
Other Government departments	NAO
TDA	HM Treasury
EC	Scottish Executive
JISC	Welsh Assembly Government
Professional	**Implementation**
AHUA	TRAC Managers
BUFDG	Research administrators
CIMA	TRAC self-help groups
ARMA	Finance Directors

56. All the public funders of higher education are under pressure to demonstrate accountability and value for money. The funding councils, research councils, the Training and Development Agency for Schools, and Department of Health all use TRAC to inform their policy and funding requirements. It helps them to make the case to Government for the funding they manage, and more generally the existence of a consistent national costing system gives them reassurance about the good management of funds in higher education which is essential to their role in the continuance of such funding.

57. The Government education departments have used TRAC to inform policy on funding – for example, the reform of the dual support research funding depended on the implementation of TRAC fEC, and other work by the Department for Business, Innovation and Skills (BIS) and its predecessor departments (e.g. on capital funding needs in higher education) has also drawn on TRAC.

58. The research councils (represented collectively by RCUK) have a strong interest as they fund projects on the basis of TRAC costs (and at a higher level than previously). Jointly with the funding councils, the research councils introduced an external Quality Assurance and Validation process which is described in the next section, and can also provide valuable assurance to other funders about the fitness for purpose of TRAC information.

59. The main funding stakeholders are represented on the two groups that now oversee TRAC – FSSG and TDG – discussed in paragraphs 69-76.

60. TRAC is therefore not just a costing system. It is as much a way of looking at accountability and institutional management which represents a collaboration between HEIs and their principal stakeholders and public-funding bodies. The success of the sector in implementing TRAC, and the support of the Treasury and the main HE funders for TRAC, has benefited all institutions directly in terms of their funding, and indirectly through the confidence it has engendered in Government. This is the "happy funders" part of the deal. Without this assurance, the sector would undoubtedly experience additional accountability requirements.

Quality and confidence in TRAC results

61. The main internal checks that are built into TRAC flow from the comprehensive Guidance, the training and other support to TRAC practitioners, and the internal management arrangements that institutions are expected to implement to assure the quality of their own TRAC data. These include:

    • reasonableness tests, including checks of academic time allocation by academic heads, and benchmarking of data in the TRAC peer groups

    • review of results by an institutional committee (normally the Finance or Audit committee)

    • the annual sign-off by the head of institution.

62. These are formal requirements of TRAC, and are part of Guidance on the control environment for TRAC. Most institutions also have an institutional steering group for TRAC chaired by a senior officer (usually a Pro-Vice-Chancellor for Teaching or Research, or the equivalent) and the involvement of their internal audit service.

63. The funding councils have maintained an annual benchmarking process, to help institutions to validate and improve their own methods through a developmental and supportive process, and in 2007 this process was extended to incorporate both the indirect cost rates for research and the new TRAC for Teaching data. In these regular benchmarking and self-assessment exercises, most institutions' TRAC practitioners state that they are confident that their TRAC data are fit for purpose, and the funding councils have good reason to believe that this is the case at the aggregated level of reporting that is required from Annual TRAC for public accountability purposes.

64. There was an external QA check on TRAC carried out by KPMG in 2004-05, but the most comprehensive external review of TRAC data has been the QAV process, which was initiated by the research councils, but managed jointly with the funding councils. QAV was conducted in 2008-09 through a self-assessment by all institutions, followed by a series of 3-day institutional audits of 50 institutions conducted by independent consultants on behalf of RCUK.

65. The detailed findings of the QAV process have been published by RCUK, and will be fed back to the sector through various meetings in 2009. Some of the messages are technical about the way institutions have understood or implemented the TRAC Guidance and these will be taken forward by the TRAC Development Group and RCUK with the TRAC Manager community and in future Guidance and information to the sector.

66. However, there are also clear messages for senior management in institutions. There is a message about institutional pricing of research – where KPMG found a tendency for institutions to understate their research costs (and thus to be paid less by research councils) rather than to "over-charge" which had been a question from RCUK. In TRAC QA terms, (and in institutional sustainability terms), understating costs is of equal concern to overstating them.

67. In reviewing this experience, the FSSG noted that:

    a. Many institutions have implemented TRAC effectively, and are managing their data quality; however, the high proportion with significant non-compliance issues is a concern ten years after TRAC was introduced, and in the light of the long lead-time that institutions were given to prepare for the QAV visits.

    b. Many institutions still do not appear to have a mature approach to implementation – and the external reviewers (KPMG) commented that the use of TRAC at a strategic level within institutions does not appear to be widespread. They note that there was some evidence for the TRAC accountant "being isolated from other processes across the organisation, lacking in both strategic input and involvement, and operational support".

68. The TDG is aware of the specific issues emerging from QAV and is working to address them, but this outcome shows that there is still further work to be done by institutions' management teams to meet the minimum requirements of TRAC. This is important for the whole sector in terms of maintaining the confidence of funders and avoiding further regulatory burdens. The best assurance comes from institutional senior management having some ownership of the value of TRAC, so that the data are used and scrutinised internally before they are reported to the funding councils or used in research project costing.

Management of TRAC – ownership and governance

69. Ownership of TRAC and policy responsibility for maintaining its integrity and authorising developments was initially with the Joint Costing and Pricing Steering Group (JCPSG), which was disbanded in 2005. HEFCE has played a leading role throughout the history of TRAC (with advice from J M Consulting), but a number of other stakeholders also influence TRAC.

70. After JCPSG was disbanded the ownership of TRAC became less clear. By 2007, this had become a problem because a number of developments raised difficult issues for the sector, and there was no single place to resolve these.

71. As a result, HEFCE established the TRAC Strategy Group, chaired by Professor Steve Smith, early in 2007 to address this "governance of TRAC" issue and the concerns being expressed in parts of the sector, and to take forward some other high level questions (notably on the sustainable costs of teaching) which needed guidance at Head of Institution level. TRAC now has a two tier governance structure.

72. The Strategy Group, now called the Financial Sustainability Strategy Group, and chaired by Professor Geoffrey Crossick, provides overall leadership, particularly from the perspective of funders and Heads of Institution, to help the sector to manage its own sustainability, using TRAC as appropriate. Its membership is at policy and funding stakeholder level (Heads of Institution, Finance Directors, research and funding councils, BIS).

73. The TRAC Development Group, chaired by Professor Stuart Palmer, maintains an overview of all the requirements, developments or initiatives related to TRAC, and controls the detail of any changes or developments to TRAC. Its membership includes senior institutional managers and funding bodies (funding councils, RCUK Assurance) and also TRAC practitioners.

74. The two groups have programmes of work which are addressing many of the key issues about sustainability, future funding, and stakeholder confidence in the sector. They also address the development and use of TRAC and other financial management information to help institutions to manage their funding and costs in an increasingly challenging financial context.

75. The membership of the two groups at July 2009 is shown below. Full details of their terms of reference and membership are available at www.hefce.ac.uk/finance/fundinghe/trac/fssg.

76. Institutions are encouraged to communicate with the two groups with views or issues that are relevant to these remits.

Membership of FSSG and the TRAC Development Group

Membership of Financial Sustainability Strategy Group (FSSG)

Members

Professor Steve Smith (Chair to July 2009)	Vice-Chancellor, University of Exeter
Professor Geoffrey Crossick (Chair from August 2009)	Warden, Goldsmiths College
Gill Ball	Director of Finance, University of Birmingham
Professor Janet Beer	Vice-Chancellor, Oxford Brookes University
Professor Glynis Breakwell	Vice-Chancellor, University of Bath
Paul Clark	Director of Policy Development, Universities UK
Professor Julian Crampton	Vice-Chancellor, University of Brighton
Professor Ian Diamond	Chief Executive, ESRC
Steve Egan	Deputy Chief Executive, HEFCE
John Gallacher	Director of Finance, York St John University
Phil Harding	Director of Finance, City University, London and Chair of BUFDG
Richard Hirst	Director of Finance, HEFCW
Professor Anton Muscatelli	Principal and Vice-Chancellor, Heriot-Watt University
John Neilson	Director, Research Base, BIS
Jim Port	Director, J M Consulting (Consultant adviser to the group)
Derek Pretty	Registrar, University of Bristol
John Selby	Director for Education and Participation, HEFCE
Professor David Tidmarsh	Vice-Chancellor, Birmingham City University
Professor Richard Trainor	Principal, King's College London (Universities UK President)
Professor Alistair Ulph	Vice-President and Dean of Faculty of Humanities, University of Manchester
Steve Visscher	Deputy Chief Executive and Chief Operating Officer, BBSRC
Heather Williams	Finance Consultant, HEFCE (Secretariat and project manager)

Membership of TRAC Development Group

Chair

Professor Stuart Palmer	Deputy Vice-Chancellor, University of Warwick

Deputy Chair

Professor Graham Henderson	Vice-Chancellor and Chief Executive, University of Teesside

Members from institutions

Reggie Blennerhassett	Director of Finance, Roehampton University
Ian Creagh	Head of Administration and College Secretary, King's College London
Louise Denniff	Grants and Contracts Officer, Loughborough University
Professor Kevin Edge	Pro Vice-Chancellor (Research), University of Bath
Peter Hope	Director of Finance, University of Ulster
John Hurd	Finance Manager – Costing and Pricing, University of Derby
Professor Anthony Monaco	Pro Vice-Chancellor (Planning and Resources), University of Oxford
Professor Gill Nicholls	Pro Vice-Chancellor (Academic), University of Salford
John O'Boyle	Director of Quality and Academic Services, Ravensbourne College of Design and Communication (Representing GuildHE)
Robert Rabone	Director of Finance and Resources, University of Sheffield
Ewa Szynkowska	TRAC Manager, Imperial College London
Professor Alistair Ulph	Vice-President and Dean, Faculty of Humanities, University of Manchester
Professor Andrew Walker	Vice-Principal, Heriot-Watt University
Professor Andrew Wathey	Vice-Chancellor and Chief Executive, Northumbria University

Members from funders and sector bodies

Dorothy Carson	Financial Analyst, SFC
Ian Lewis	Head of Finance, HEFCE
Gareth MacDonald	Head of Assurance, RCUK
Kevin McGladdery	Policy Officer, Universities UK
Bethan Owen	Head of Governance, Leadership and Information, HEFCW
Jenni Rogers	HE Policy Adviser, HEFCE (Secretary)
Heather Williams	Finance Consultant, HEFCE (Project manager)

Appendix: The four TRAC applications

1. Annual TRAC: retrospective attribution and reporting of costs and income.

1. From 2000-01 all UK HE institutions use TRAC to attribute costs from their audited financial statements to activities at an institutional level, and from 2006 they have done the same for income. This leads to annual reporting, to the funding councils, by institutions of the costs and income of Teaching (split into publicly-funded and non-publicly-funded); Research (split into the main research sponsor types of institution/own sponsored research, PGR student activity and external research sponsors); and Other core institutional activity. Institutions report in January each year, based on the accounts for the previous year (so in January 2010, they report costs and income based on 2008-09 accounts data).

2. Income and expenditure are obtained from accounts, and two cost adjustments are calculated to create "full economic costs" for each institution (see box below). Income and expenditure is then attributed to activities (including an interim Support category), and to academic departments. Whilst costs are attributed directly where possible (e.g. the costs of research administration to Support for Research), most costs are grouped into cost pools and then attributed using cost drivers. The main cost drivers are staff numbers and academic staff time (obtained through time recording systems such as diaries or retrospective schedules), estates square metres and use, student numbers, and estimates from heads of department and heads of service departments. It is very important that these cost drivers are appropriate and provide robust measures of use.

3. While it is required for public accountability, the annual TRAC process also provides management information for institutional use. TRAC costs and income can be built up at departmental level, and the surplus/deficit by activity or by department is clearly relevant to managing sustainability.

4. Annual TRAC also provides costs per student, and calculates the charge-out rates for Research – the indirect cost rate, the estates charges and rates for other directly allocated costs such as research facilities and technicians. These rates are used in full economic costing of research and other projects, and so provide justification for public funding for research and a basis to inform pricing of non-publicly-funded projects (research, consultancy and other activity).

The TRAC cost adjustments

The Infrastructure Cost Adjustment is a technical accounting adjustment which ensures that depreciation of assets is charged on a "current value" (using an insurance valuation) and so more closely reflects the real economic cost of any assets which are held in institutions' books at a historic cost. It is a self-regulating adjustment in the sense that it reduces to zero for institutions which are already accounting for depreciation at current costs.

This adjustment is about obtaining data on a consistent basis across all institutions. However, it may still leave an understatement of the full economic cost of infrastructure, as it assumes the value of estate, backlog maintenance levels, and annual maintenance spend are all appropriate to mission – which is not the case in some institutions. Moreover, there is no corresponding infrastructure adjustment for equipment because of the technical difficulty of costing of equipment.

> **The return for financing and investment** is intended to ensure that institutions take account of the economic cost of capital. This covers the financing costs of institutions, including the existing costs of borrowing and the opportunity cost of institutional cash used for financing; it also provides funds for the rationalisation and development of institutions' business capability and capacity. It does not however, specifically adjust for inadequate spend in areas such as student support and facilities, staffing levels etc.
>
> Some people find it helpful to think of this adjustment as a pricing factor, rather than a cost, in the sense that it is a proxy for the higher level of recovery, and generation of cash for investment, that all institutions need to be sustainable. Because their current surpluses are so low, this adjustment leads to deficits (a need for more resources) in the TRAC-adjusted accounts.
>
> Across the sector, the two cost adjustments added approximately £1.7bn to institutions costs in 2007-08 (7.8%).

2. TRAC fEC: forecasting and accounting for full economic costs at a research project level.

5.   From 2005, as a result of the Government's reform of the dual support system for funding university research, all institutions applying for research council grants calculate TRAC full economic costs (fEC) for each research project.

6.   Institutions implemented TRAC fEC during 2004 and 2005. The main additional requirements were that institutions now have to:

   a.   forecast/estimate academic staff time and their costs robustly at project level;

   b.   allocate costs directly to projects for research facilities (such as biological services, ships, telescopes) and technicians – using charge-out rates derived from the annual TRAC process;

   c.   attribute support costs to projects using robustly calculated cost rates, with the indirect and estates cost rates each expressed as a £ per full time equivalent (FTE) academic or research member of staff.

7.   These three new elements of cost, plus the directly incurred costs that have always been identified (research assistants, consumables, equipment purchases, PGR stipends etc), make up the fEC of a research project. These costs are profiled over the life of the project, and adjusted for pay increments and inflation. This provides the basis for the cost-based price (which is often 80% or 100% of fEC).

8.   The 80% basis of funding is a policy decision by the Government. As already noted, it is well in excess of the previous level. And the funding as less than 100% partly reflects the availability of other sources of funding to institutions (notably the block grant for research (QR) and public capital grants for research infrastructure). The full fEC cost (100%) comes close to reflecting the full long-run cost of maintaining a sustainable research infrastructure, as well as the full costs of individual projects using that infrastructure.

9.   The full fEC cost of a research project should set the price for grants made by OGDs (Other Government Departments) – but not all comply with this – and it informs the price on projects for other sponsors.

10. If the funding is less than 100% of fEC, the institution has to be aware of its own financial contribution and to ensure either that it has sufficient public funding to subsidise "scientific public good" research; or that the research project is of sufficient strategic interest to justify subsidy through any other funds that it has available. HEIs do not have to account publicly, at a project level, for these subsidies, but they should be able to reassure themselves that across their portfolio of activities, taking one year with another, the subsidy does not exceed the funds available.

3. TRAC(T): allocating teaching costs to disciplines (HESA academic cost centres).

11. The funding of teaching is not so directly tied to costs for several reasons, including the very wide diversity of teaching practices and costs across the sector. Nevertheless, the funding councils in England, Scotland and Northern Ireland operate teaching funding methods which are informed by costs, in the way they fund on a "price per student" basis, and allocate subjects to different price bands.

12. In England, HEFCE conducted a review of its teaching funding method in 2005-06, and decided, after consultation with the sector, to extend the use of TRAC to provide cost information to inform the funding of teaching. TRAC(T) began in 2007 and undertakes further sub-analysis of the publicly-funded teaching (PFT) costs from Annual TRAC to derive the average subject-related costs of teaching a funding council-fundable student in a HESA academic cost centre – the so-called Subject-FACTS. (So, it does not analyse non-subject related costs such as widening participation costs, or costs of students funded by the TDA or Department of Health). The Subject-FACTs provide for the first time a full economic cost of teaching in different disciplines. They were introduced to inform HEFCE's review of the price groups in its teaching funding model.

13. TRAC(T) is mandatory in England and Northern Ireland and is implemented by nearly all institutions in Scotland.

4. TRAC EC-FP7.

14. This is an extension of the TRAC fEC work, which adds additional work for institutions applying for EC-FP7 research grants to enable them to satisfy the European Commission's requirements for a method to calculate personnel charge-out rates and "real indirect costs".

15. The additional requirements include the completion of project-based monthly timesheets by all members of staff (and students) working on the project, removal of some ineligible costs from the indirect cost rates, and replacement of any proxy costs (such as an indirect cost rate based on a prior year's expenditure) by actual costs incurred in that period.

16. There is a considerable administration burden in complying with these requirements. Unlike applications 1-3, TRAC EC-FP7 therefore affects a smaller number of institutions, and is voluntary in that each institution can decide whether the extra TRAC work is justified by the additional income recovered as a result.