

TRAC EC-FP7 Guidance

April 2014

Contents

	Page number
Introduction	1
Introduction	1
Confirmation of compliance	2
Preparation of the Guidance	2
A Endorsement	
Error! Bookmark not defined.	
Endorsement by Universities UK, the Higher Education Funding Council for England and the Department for Innovation, Universities and Skills	2
Note by KPMG LLP	5
B Overview of TRAC EC-FP7	4
Introduction	
Error! Bookmark not defined.	
TRAC-fEC	6
TRAC EC-FP7 – changes to TRAC-fEC	8
C Technical Guidance for TRAC EC-FP7	13
Section C-1 TRAC-fEC	13
Annual TRAC	13
Annual TRAC: charge-out rates	15
TRAC fEC	16
TRAC for Teaching	18
Section C-2 FP7 requirements	19
The requirements	19
Direct and Indirect costs	19
Direct staff costs	22
Summary of the indirect cost requirements	25
TRAC EC-FP7, the Guidance	27
Quality assurance	35
Implementing this Guidance	37
Annexes:	
1 Model example: part of the Certificate of Methodology/Form E	
2 Example calculation of irrecoverable VAT	
3 Example audit programme – QAV-Process and additional audit procedures	

- 4 Letter from the Director-General of the Research Directorate-General of the European Commission 6 February 2008

TRAC EC-FP7

Introduction

1. This is an update to the original TRAC EC-FP7 guidance produced in 2008 (with subsequent updates in 2009). This is a report describing the United Kingdom (UK) system that will produce personnel costs and real indirect costs for higher education institutions (HEIs) on research projects that can be declared as eligible costs under specific funding schemes in Framework Programme 7 (FP7) of the European Commission (the Commission).
2. The TRAC system for producing Eligible Costs for calculating the Community financial contribution for research and technological development projects under FP7 is called **TRAC EC-FP7**.
3. TRAC EC-FP7 is based on the UK system called the Transparent Approach to Costing (TRAC). TRAC is a suite of systems, consisting of annual TRAC, research charge-out rates, TRAC fEC (full economic cost) and TRAC for Teaching. TRAC is in place in all UK HEIs. TRAC produces various outputs, one of which is the full economic cost of all research projects, including indirect cost rates (overhead rates). The TRAC suite of systems is referred to in this report as **TRAC-fEC**.
4. TRAC EC-FP7 is a development of TRAC-fEC. A number of adjustments need to be made to TRAC-fEC processes and calculations in order to calculate the personnel and real indirect costs that can be used as a basis for determining the Community financial contribution under FP7. (These adjustments include, for example, the exclusion of ineligible costs; the requirement for full monthly timesheets for academic staff recording time on FP7 projects; and the replacement of standard personnel and indirect costs on each project by actual time and costs.)
5. (The eligible costs calculated under TRAC EC-FP7 are a basis for calculating the price (the Community's financial contribution); they are not the full costs of the projects, which are those originally calculated by the TRAC-fEC system. The Community's reimbursement is a contribution to eligible costs, it does not mean that that 100% of eligible costs are reimbursed.)
6. This report describes the Commission's requirements and describes how TRAC EC-FP7 meets these. As part of this the report describes the adjustments that institutions need to make to TRAC-fEC to produce a TRAC EC-FP7 system.
7. TRAC EC-FP7 is **not mandatory** and institutions are free to develop any other costing system they wish which they believe meets the Commission's requirements to produce real indirect costs, or to use the alternative flat rate. However, no other system can be called TRAC EC-FP7, and they are not covered in this report.

Confirmation of compliance

8. The UK Government presented TRAC EC-FP7 (version dated March 2007) to officers of the Commission in 2007, as the proposed UK costing system which would meet the FP7 costing guidelines, and invited them to indicate if they had any reservations or observations to make. Their comments were incorporated into the methods and into this report.
9. A letter from Janez Potocnik, Member of the European Commission, is included with the Guidance at Annex 1. This was issued 10 December 2008 and states that the TRAC EC FP7 Guidance provides a sound reference framework for the costing of FP7 grants.
10. TRAC EC-FP7 provides the means for auditors, working with institutions, to provide an 'independent report of factual findings on the methodology concerning a Grant Agreement financed under FP7'.¹ An example of Form E part 'Statements to be made by the Beneficiary and corresponding procedures to be carried out by the Auditor with examples on factual findings' is included at Annex 2. This forms part of the Certificate on the Methodology.² The fact that any particular institution is using the TRAC EC-FP7 system and is eligible for this certificate must of course be separately verified by that institution's auditors.
11. Institutions which are using systems that are in compliance with TRAC EC-FP7, once verified as such by their auditors through the TRAC EC-FP7 quality assurance and validation process, should in principle be in compliance with the Commission's FP7 costing guidelines. They and their auditors should be able to complete the template TRAC EC-FP7 Form E part certificate on the methodology for approval by the Commission.

Preparation of the Guidance

12. The original report was written by J M Consulting Ltd, for Universities UK (the UK rectors' organisation); the four UK Higher Education Funding Councils; and the Department for Innovation, Universities and Skills³. J M Consulting worked with the international auditing and accounting firm KPMG LLP; the United Kingdom Research Office, UKRO; and TRAC managers, Finance Directors and European Officers at a small group of HEIs in the UK. TRAC EC-FP7 was compared against models in universities in the Netherlands that have either been applied as a Full Cost model under FP6; or were under development for FP7.

¹ Annex VII, Form E

² Form E as included in the current annex does not represent the Certificate on Methodology as a whole but just a part of it. The whole Certificate comprises the Terms of Reference and the Independent Report addition to the table with the statements of the beneficiary and the auditors.

³ The Department for Innovation, Universities and Skills (DIUS) is responsible for UK Science Policy and for funding basic research allocated via the Research Councils. It was created in June 2007 and incorporates the Office of Science and Innovation (previously part of the Department of Trade and Industry).

13. This guidance has been updated to reflect the latest version of the Guide to Financial Issues relating to FP7 Indirect Actions (18/03/2013) and amendments to TRAC as at April 2014. Section B describes TRAC-fEC and how it has been developed for TRAC EC-FP7. This provides useful reading for senior Commission officials, auditors, and European Research Administrators and senior managers in UK HEIs.
14. Section C is a more technical part of the report. Section C-1 gives a more comprehensive description of TRAC-fEC.
15. Section C-2 sets out the FP7 requirements in some detail, and explains how TRAC-fEC, developed for TRAC EC-FP7, meets those requirements. It is suitable for reading by TRAC managers in the UK who would implement the changes to TRAC-fEC. Commission officials who are familiar with the detailed requirements of FP7, and auditors who involved in TRAC and FP7 audits in HEIs or in the Quality Assurance and Validation process (QAV), will also find this of interest.
16. The Annexes provide:

an example of part of the Certificate on the Methodology Form E: 'Statements to be made by the Beneficiary and corresponding procedures to be carried out by the Auditor with examples on factual findings' for TRAC EC-FP7. This Certificate encompasses both CoM and CoMAv (average personnel costs).

The Form E included in the current document is just a practical example - the Form E that must be followed is the one included in Annex VII of the Grant Agreement (version 2) adopted by the EC on 02 of October 2008.

The Model Terms of Reference and Independent Report are an integral part of Form E (not shown in this annex). They are also to be used in an unchanged format. Article 1.8 of the Terms of Reference (Forms E in Annex VII of the Grant Agreement) makes specific reference to the point "Other Terms". Institutions and auditors may address specific issues such as auditors' fees, liability, applicable law, etc, in the context of the above article;

1. an example method for calculating irrecoverable VAT. (This attachment to Form E could be provided in any format);
2. an example audit programme that is based on an initial Quality and Assurance Validation audit (QAV) followed by an additional audit to cover aspects specific to TRAC EC-FP7;
3. a copy of the letter from the Director-General of the Research Directorate-General of the European Commission dated 6 February 2008.

November 2008

Overview of TRAC EC-FP7

Introduction

1. TRAC EC-FP7 is a system that has been developed to provide eligible personnel and real indirect costs for research projects undertaken by HEIs in the UK for FP7. These projects are those funded by the Community under the following funding schemes: Networks of Excellence, Collaborative projects, Research projects for the benefits of specific groups (SMEs), and Coordination and Support Actions.⁴
2. TRAC EC-FP7 satisfies the requirements of a 'simplified method of calculation, as described in the FP7 Model Grant Agreement Annex II dated 14 December 2012. TRAC EC-FP7, whilst comprising a complicated set of standards, principles, requirements and methods, fits the definition of a 'simplified method' under FP7 as it does not require the separate identification of overheads for individual departments.
3. TRAC EC-FP7 has been endorsed by Universities UK, the Higher Education Funding Council for England (HEFCE) and by the Department for Business Innovation and Skills. TRAC EC-FP7 provides the means for auditors, working with institutions, to provide an 'independent report of factual findings on the methodology concerning a Grant Agreement financed under FP7'.⁵ An example of part of the Certificate of the Methodology Form E: 'Statements to be made by the Beneficiary and corresponding procedures to be carried out by the Auditor with examples on factual findings' for TRAC EC-FP7 is included at Annex 2. The European Commission has confirmed that the part of Model Form E "Statements made by the Beneficiary and corresponding procedures to be carried out by the Auditor with examples of factual findings" given in Annex 2 reflects the standards as specified in the FP7 Grant Agreement dated 22 December 2006 and the Regulation (EC) No 1906/2006 of the European Parliament and of the Council of 18 December 2006 laying down the rules for the participation of undertakings, research centres and universities in actions under the Seventh Framework Programme and for the dissemination of research results (2007-21013) (1).
4. The fact that any particular institution is using the TRAC EC-FP7 system and is eligible for this certificate must of course be separately verified by that institution's auditors.
5. Institutions which are using systems that are in compliance with TRAC EC-FP7, once verified as such by their auditors through the TRAC EC-FP7 quality assurance and validation process, should in principle be in compliance with the Commission's FP7 costing guidelines. They and their auditors should be able to complete the template TRAC EC-FP7 Form E part certificate on the methodology for approval by the Commission.

⁴ Marie Curie actions are not covered here.

TRAC EC-FP7 also provides eligible costs for research projects undertaken for the European Research Council. However, unlike the funding schemes listed in paragraph 1 above, the contribution from the Commission for 'real costs' is capped (at 120% of direct costs).

⁵ Annex VII, Form E

6. It should be noted that:
 - This Certificate encompasses both CoM and CoMAv (average personnel costs);
 - Form E included in the current document is just an example. The official version is given in annex VII of the Grant Agreement adopted by the EC on 2 of October 2008;
 - The Model Terms of Reference and Independent Report are an integral part of Form E (not shown in this annex). They are also to be used in an unchanged format. Article 1.8 of the Terms of Reference (Forms E in Annex VII of the Grant Agreement) makes specific reference to the point "Other Terms". Institutions and auditors may address specific issues such as auditors' fees, liability, applicable law, etc, in the context of the above article.
7. This is not a compulsory system for UK HEIs. Institutions that currently operate robust TRAC systems should be able easily to adapt them to develop TRAC EC-FP7. Institutions can alternatively opt to use a flat rate for indirect costs established in the Rules of Participation and Model Grant Agreement when calculating eligible indirect costs for the purpose of calculating the Community contribution on research projects.⁶
8. Institutions are free to develop any other costing system that they may currently be using, in order to establish eligible personnel and real indirect costs, should they wish. However, this report does not cover systems other than TRAC-fEC and TRAC EC-FP7.

⁶ However, institutions that can identify real indirect costs but have opted to use the flat rate instead will receive a lower Commission contribution than those institutions that are using the flat rate because they cannot identify real indirect costs.

TRAC-fEC

9. TRAC EC-FP7 is based on TRAC-fEC. TRAC-fEC is an integrated suite of systems for costing activity in higher education institutions. TRAC-fEC was first developed in 1999. It is in place in all 165 HEIs in the UK. It is a requirement of the UK Government for all UK HEIs to implement TRAC-fEC and this is monitored and supported in each country by the relevant Higher Education Funding Council.⁷
10. The first part of TRAC-fEC (annual TRAC) was formally accepted by the UK Government in 1999. Its extension to research projects (TRAC fEC) was then endorsed by the UK Government in 2004. It was then extended to Teaching (TRAC (T)) in England, Northern Ireland and Scotland, and the Funding Councils in those countries endorsed this in October 2006.
11. TRAC-fEC results are used by various parts of the UK Government to inform funding policy (on the funding of Teaching and Research). TRAC-fEC produces charge-out rates for research projects. The funding for research projects made by the UK Research Councils is calculated by taking a percentage of the TRAC-fEC cost of each project, which includes costs based on these charge-out rates. Other Government Departments are expected by the UK Government to fund research at 100% of this TRAC-fEC cost. TRAC-fEC is also used to provide information on Teaching to inform the funding models for teaching operated by the Higher Education Funding Council for England.
12. TRAC-fEC is a holistic system, covering all activities within HEIs. The information is used internally by many HEIs for their own decision-making, planning and management.
13. The suite of systems under TRAC-fEC is as follows:
 1. annual TRAC
 2. annual TRAC: charge-out rates
 3. TRAC fEC
 4. TRAC (T).
14. A short summary of these systems is given in this Section – Section C-1 contains a more detailed description.
15. It is recommended that readers of this report also read the Overview to TRAC at <http://www.icpsq.ac.uk/guidance/downloads/Overview.pdf>
16. **Annual TRAC** is a system that takes the costs from the audited financial statements, and adds on two cost adjustments (for infrastructure and return for financing and investment⁸) so that the costs better reflect full economic costs. These costs are then attributed between four activities: the three core activities of Teaching, Research and Other (Other includes consultancy and students residences); and Support activities.

⁷ HEFCE – Higher Education Funding Council for England; SFC – Scottish Funding Council; DELNI – Department for Education, Northern Ireland; HEFCW – Higher Education Funding Council for Wales

⁸ the adjustment for the return for financing and investment was previously called the cost of capital

17. Support activities cover central services, information services, estates, the two cost adjustments, and Support activities carried out in academic departments. Support costs are then attributed to the three core activities. All costs are also attributed to academic departments. Attributions are made through robust cost drivers, such as staff time surveys, reviews of estates use, and student numbers.
18. Each year, institutions produce a report that shows the cost, and income, of each of the three core activities, reconciled to the audited financial statements.
19. **Annual TRAC: charge-out rates** is a system that takes the Support costs produced from the annual TRAC process. It calculates charge-out rates for Research. These mainly cover indirect costs and estates costs. They are expressed as a £ per academic/researcher full-time-equivalent (FTE) member of staff who is working on Research.
20. **TRAC fEC** is a system that calculates the full costs of a research project, in a way that can be used by institutions and sponsors to price the work. It then provides a method for recording, reporting and auditing these costs over time. These costs include the indirect and estates costs calculated by use of the charge-out rates.
21. **TRAC (T)** or TRAC for Teaching provides an analysis of the costs of teaching.
22. There are a comprehensive set of quality assurance methods in place in TRAC-fEC. They include internal checks and testing, internal audit, and external reviews. A review of annual TRAC implementation in every institution in the UK was undertaken by an audit team commissioned by the Funding Councils in 2004/05. The Research Councils have now introduced an external quality assurance and validation process which is to provide assurance to all sponsors of research projects that institutions are correctly applying the annual TRAC costing methodology, and are correctly calculating the charge-out rates for research.⁹
23. TRAC-fEC is based on a set of common costing standards, and accounting principles, which are being followed by every institution in the UK. This ensures that results are robust and comparable and fit for purpose across every one of the 165 institutions in the UK. However, HEIs are encouraged to embed and use TRAC-fEC themselves, and to help with this a variety of methods can be adopted by different institutions, as long as they comply with the formal TRAC standards and principles.
24. A set of comprehensive TRAC-fEC Guidance contains the formal requirements and also gives helpful material to HEIs implementing TRAC-fEC. This Guidance is available on <http://www.icpsg.ac.uk/guidance/index.htm>.

⁹ this process is being carried out in 2007 and 2008, and will be done in parallel with the existing Research Council 'dipstick' programme (now called Funding Assurance Programme) which will be extended to review the application of the charge-out rates on individual research projects.

TRAC EC-FP7 – changes to TRAC-fEC

25. TRAC EC-FP7 requires six changes to be made to the TRAC-fEC processes:
1. exclusion of ineligible costs from the indirect cost rate;
 2. the completion of full project level monthly timesheets by academic staff working on the FP7 projects;
 3. reflection of the actual time and salary of academics working on FP7 projects;
 4. recalculation to produce a set of indirect cost rates for TRAC EC-FP7;
 5. reflection of actual indirect cost rates and actual time on FP7 projects;
 6. additional quality assurance.
26. These are described in full in Section C-2 of this report and are summarised below.

1. Indirect costs

These are defined for the purposes of this report as covering TRAC-fEC indirect costs, the directly allocated charges for estates costs, research equipment/facilities costed using charge-out rates, and infrastructure laboratory technicians. (The charge-out rates for each of these are, however, still calculated and applied separately under TRAC EC-FP7, as for TRAC-fEC.) As for TRAC-FEC, Research charge-out rates are project-related and do not include any indirect costs related to Teaching or Education, or to Other activities not related to Research.

Some activities on FP7 research projects, such as project management, can be carried out by an academic, an academic-related member of staff or an administrator. These staff **should** be considered the equivalent to academic members of staff, and indirect cost charge-out rates **should** be applied to the time they charge to the project. This direct time **should** be included in the denominator when the TRAC-fEC rates are next calculated. This denominator would then apply to any rates calculated for any sponsors, including for the Research Councils.

The two TRAC-fEC cost adjustments **should** be excluded from TRAC EC-FP7 indirect costs. When excluding these costs:

- the net infrastructure charge **should** be excluded;
- the gross return for financing and investment **should** be excluded; (i.e. interest costs **should** also be excluded).

Historical cost depreciation **should** be included for buildings and equipment, not depreciation on a current cost revaluation method.

Irrecoverable VAT **should** be excluded as it is an identifiable indirect tax. An indirect exclusion method can be used for this provided it is based on a fair and auditable method which can guarantee the reliability of the results. Annex 3 gives an example of an acceptable indirect exclusion method – its use would be noted on Form E. VAT on overseas hotel bills and other disbursements **should** be excluded from the indirect cost rates.

Irrecoverable duties **should** be excluded.

Any exchange rate gains or losses **should** be excluded.

Charges made to a provision for enhanced pension payments **should** be excluded, as it is a provision. When the payments are actually made from the provision (to the pension scheme), these payments **should** be included in indirect costs.

If an institution makes any other charges to a provision, these **should** be excluded from the indirect costs for Research (e.g. restructuring, bad debts if separately provided for).

The financing elements of the lease costs on buildings and other assets **should** be excluded.

2. Academic staff time

Academics, researchers or other staff who work on a FP7 project **should** complete monthly timesheets (or their equivalent). These **should** start to be prepared as soon as a FP7 project on which they are named or are likely to work on has been awarded. They **should** be completed during the project's life, and up to the end of the institution's financial year that falls after their work on any FP7 project has finished.

The timesheets **should** show the actual productive hours worked by that person as follows:

- 1(a), 1(b) etc: time on each Commission project, by activity (i.e. with reference to the relevant 'action' or 'work package');
- 2: time on management and administration;
- 3: time on all other activities for the university;
- 4: total productive hours (a total of (1(a), 1(b) etc, 2 and 3 above);
- 5: time on vacation, sickness, jury leave, paternity/maternity leave.

These timesheets are used to charge hours to FP7 projects, and then to calculate the personnel costs and the indirect costs allocated to those projects. The project timesheets **should** be signed by the principal investigator and (where appropriate) their manager/supervisor.

These time recording methods are in addition to the method used under annual TRAC where all academics contribute to a survey recording their time, by activity, for a whole year, every three years. The annual TRAC method is used to calculate the part of the total indirect costs for Research to be included in the indirect cost rate calculation.

3. Use of actual staff time and costs

The costs of academics, as well as researchers, **should** be charged to FP7 projects as a directly incurred cost.

The academics' timesheets (or equivalent) give the hours that can be charged to the project. These then determine the FTEs and the costs to which indirect rates are applied.

The charge-out rate for each academic (their personnel charge-out rate) **should** be based on either their actual salary, or the average salary of the relevant pay band for them, whichever is the university's standard practice in their TRAC-fEC system.

Where a personnel charge-out rate for a pay band or pay group is calculated, this **should** be calculated from the real average of actual salaries being paid to individuals in that group. However, the pay bands **should** reflect a low level of deviation (highest to lowest) to ensure that the pay band average salary used for any one individual does not differ significantly from their actual salary costs.¹⁰

¹⁰ An overall decision by the EC on relevant acceptability criteria is pending.

Each personnel charge-out rate **should** be recalculated separately for each year (this can be done annually or at the end of the life of the project). This recalculation should reflect, for each year:

- a) the actual salary paid to that person (or group of individuals within the pay group) for that year (this forms the numerator, or top-line, of the personnel charge-out rate calculation);
- b) the average productive hours for that individual or all individuals working on FP7 projects that are recorded during that year (this forms the denominator, or bottom-line, of the personnel charge-out calculation).

The above also relates to laboratory technicians working directly on a project. Their time **should** be recorded on timesheets, and relevant personnel charge-out rates applied to the relevant hours for the life of the project. (All technicians working directly on a project are therefore categorised as directly incurred, not directly allocated. However, the costs of infrastructure technicians are considered to be part of the suite of indirect cost rates – see below.)

4. Calculating the TRAC EC-FP7 indirect cost rates

(The term 'indirect cost rates' used here includes all of: indirect costs, estates costs, research infrastructure technicians. This term does not include directly allocated 'pool' laboratory technicians – see above. Research facilities are an indirect cost but are charged on use, not on personnel time.)

One of two methods can be used to charge indirect costs onto a project: % of direct personnel costs, or £ per FTE. Institutions **should** choose between these two methods and use the same method to recharge all of their indirect costs.

If £ per FTE rates are used, then the rate **should** be calculated as described in annual TRAC, however only including eligible costs.

The alternative method is to apply indirect costs as a % of direct personnel costs. This is the recommended approach as it is less onerous to calculate and apply than the £ per FTE method. It **should** be calculated as eligible indirect costs over direct personnel costs of Research for the institution (direct personnel costs of Research in all research sponsor categories including PGRs, institution/-own funded Research and external research projects; and covering both DI and DA personnel costs of academics, researchers, PGR students and other staff).

The laboratory and laboratory technician % rates, and the non-laboratory estates % rates, **should** be calculated using the direct personnel costs for the relevant laboratory and non-laboratory departments, respectively, in the denominator. The indirect cost rate **should** be calculated using the sum of these two sets of department personnel costs in the denominator.

5. Applying actual indirect cost rates to actual time and costs

The indirect cost rates that are applied to staff time worked during each year of a project **should** reflect the actual time worked on that project each year and the actual costs incurred each year. These recalculations **should** be carried out and reflected in the project costings by the end of the project.

a) Costs

The actual costs for each year of the project **should** be used to calculate the indirect cost rates that are applied to the project.

The actual indirect cost rates will not be available for the last months of the project when the final cost statement on a project is prepared (because the institution's financial statements or TRAC rates will not yet have been finalised). For these months:

- if £ per FTE rates are used then the latest actual rates that are available **should** be used, indexed by the UK GDP expenditure deflator;
- if % rates are used then the latest actual rates that are available **should** be used (with no indexation).

This means that at the end of each project all costs will be based on actual expenditure, not on estimate or forecast.

b) Time worked on the project

Where % indirect cost rates are used the relevant percentage rates **should** be applied to the direct personnel costs of the project that were incurred for the relevant period.

The £ per FTE method requires more complex calculations. The time actually worked on each project by each staff member **should** be converted to FTEs and the indirect cost rates per FTE (calculated using actual eligible costs only) **should** be applied to this. An example of the method that **should** be used to calculate this is as follows:

For each year of the project:

- a) the actual indirect costs from annual TRAC, abated as defined in this Guidance, and the academic/researcher FTEs for the institution as a whole established in annual TRAC, **should** be used to calculate actual indirect cost £ rates per FTE for that year (=A)
- b) the full time equivalent of the total productive hours recorded by academics and researchers during the time they worked on the FP7 project **should** be established for each year (=B)
- c) the hours charged to the project by those staff **should** be calculated as a percentage of total productive hours (=C)
- d) this % (C) **should** be multiplied by the FTE (B) to provide the number of FTEs to which the indirect cost rates for that year (C) should be applied.

A £ per FTE rate **should not** be converted to a £ per hour rate by dividing by the standard number of hours used in TRAC-fEC (1650).

6. Quality assurance and validation

The HEI **should** commission an independent audit that verifies the facts on the 'independent report of factual findings on the methodology concerning a Grant Agreement financed under FP7' (Certificate on the Methodology Form E). An example of Form E part "Statements to be made by the Beneficiary and corresponding procedures to be carried out by the Auditor with examples on factual findings" is given in Annex 2 – the exceptions to the requirements described under the auditors' findings are an acceptable part of TRAC EC-FP7.

This audit can be carried out at any time during the Framework Programme, but can only be done after at least one project that is costed on a TRAC EC-FP7 basis is underway.

The UK's preferred approach to the independent audit is for the university to commission a Quality Assurance and Validation audit (if not already commissioned by the Research Councils), and then add the audit of the specific TRAC EC-FP7 methods to this. An example audit programme is attached as Annex 4 – shown in two parts.

The FP7 audit requirements at a project level, i.e. for the Certificate on the Financial Statements, will be in addition to this. However, in terms of the procedures for this Certificate that cover charge-out rates, the auditors will just need to satisfy themselves that the rates calculated from the (previously verified) TRAC EC-FP7 process have been correctly applied.

A. Technical guidance for TRAC EC-FP7

Section C-1 TRAC-fEC

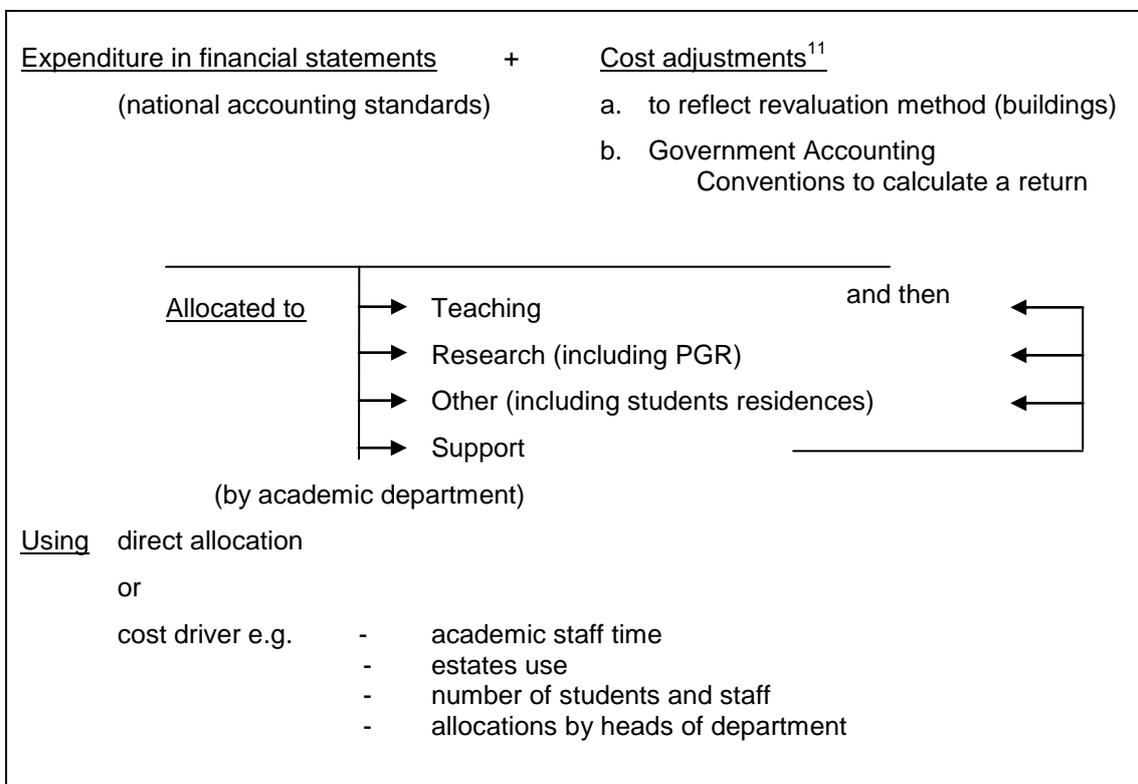
1. This Section describes the TRAC-fEC methods in more detail. The four TRAC-fEC systems are:
 1. annual TRAC
 2. annual TRAC: charge-out rates
 3. TRAC fEC
 4. TRAC for Teaching.

(i) Annual TRAC

2. Annual TRAC is the initial public accountability exercise flowing from the 1999 Transparency Review. Part III of the TRAC Guidance covers annual TRAC. This involves the annual retrospective reporting of the costs, and (since 2006) income, of Teaching, Research, and Other principal activities of institutions (Other includes consultancy and students residences). These terms are very precisely defined and costs are separately identified at all times (see Annex 6 of the TRAC-fEC Guidance).
3. As part of this, information is separately recorded on the costs and income by research sponsor type (UK Research Councils, Other UK Government Departments, European Union, industry/ commerce/ overseas governments, UK charities) and on institution-/own-funded research (which has no external sponsor) and on the training of postgraduate research students (PhD students or PGRs).
4. Costs and income are also separately recorded for publicly-funded and non-publicly funded teaching.
5. TRAC is based on institutions' audited financial statements. These are prepared in accordance with the Further and Higher Education Statement of Accounting Practice, issued in accordance with the Accounting Standards Board guidelines – see footnote to paragraph 37.
6. Two cost adjustments are then made to the expenditure in the audited financial statements. An infrastructure adjustment is made to ensure that all institutions use the equivalent of the revaluation method of depreciating assets (rather than historical costs); and a return for financing and investment is included to provide a cost of capital. Precise formula needs to be followed when making these adjustments (they are, however, ineligible costs under TRAC EC-FP7, see below).
7. All institutional costs are then allocated to academic departments (and to other income-generating departments), and to Teaching, Research and Other activities. This is done through either direct allocation (e.g. the costs of the international office are allocated to non-publicly funded Teaching; students residences are allocated to Other); or through cost drivers. These cost drivers must reflect the main cause or driver of the costs. Allocations of academic staff time to Teaching, Research and Other are based on the academic time surveys. A variety of cost drivers are used – estates use (weighted by the

relative costs of different types of space); staff and student numbers; informed allocations from Heads of Department; etc.

8. As part of the annual TRAC process, the Support costs of Teaching, the Support costs of Research and the Support costs of Other activities are identified separately. These form the top-line (numerator) of the charge-out rates for each activity.
9. No cost that is allocated to Teaching or to Other activities (for example, student residences) are ever allocated to Research, and therefore they are always excluded from the charge-out rates for Research.
10. The diagram below is an overview of the annual TRAC processes. This is a retrospective process, carried out each year. The financial and academic years of HEIs finish on 31 July of each year. The annual TRAC return must be made to the Funding Councils no later than 31 January of the following year. Rates (calculated from annual TRAC figures) are recalculated, and indexed and verified rates are applied from 1 February of that following year.



Relevant data produced:

- a. the amount of time that academics, researchers and PGR students have spent on Research
- b. the amount of time that academics have spent on Support activities (activities that cannot directly be allocated to Teaching courses, Research projects or Other activities e.g. management, administration, professional development etc)
- c. the costs of this Support time, and the allocation of this between Teaching, Research and Other activities
- d. all other Support costs. These include estates, central service departments, support

¹¹ These are removed under TRAC EC-FP7, see later

staff (secretaries and infrastructure technicians) and non-staff costs not directly allocated to Teaching, Research or Other activities. Again these are separately allocated and identified separately for each of Teaching, Research and Other.

(ii) Annual TRAC: Charge-out rates

11. The Support or indirect costs identified in the annual TRAC process are then used to calculate charge-out rates for Research. Part IV of the TRAC-fEC Guidance covers this.
12. These charge-out rates cover indirect costs, estates costs, 'pool' and infrastructure laboratory technicians, and research facilities that are costed on programmes using charge-out rates (referred to as major research equipment in this report). These costs are known variously as indirect costs, overhead costs or Support costs.
13. The charge-out rates for Research are based on actual, audited costs, which are relevant only to Research. They are neither estimates nor forecasts; nor do they include any costs relevant to Teaching or Other activities.
14. The following diagram gives an overview of the calculation of the charge-out rates for Research. Although one calculation is shown here for ease of understanding, under TRAC-fEC a number of calculations are done, one for each charge-out rate (as described in the second box below).

Numerator (top line)	<p><u>actual Support costs (of Research)</u> (This excludes all Teaching and Other costs and excludes all direct costs (e.g. of research contracts))</p> <p>It includes:</p> <ul style="list-style-type: none"> - academic Support time (management, administration, professional development) - support staff in academic departments (administrative staff, infrastructure technicians etc) - non-staff costs in academic departments - central services (adjusted under TRAC EC-FP7, see later) - estates (of academic departments and central service departments, but not of student residences) - cost adjustments (removed under TRAC EC-FP7, see later)
over	<u>divided by</u>
Denominator (bottom line)	<p><u>full time equivalent (FTE) numbers (working directly on Research)</u></p> <ul style="list-style-type: none"> - research staff; - the time that academic staff (who carry out both Teaching and Research duties) spend on Research projects; - post-graduate research students (weighted).

Relevant data produced:

- a. a Research indirect cost rate expressed as a £ per full-time equivalent researcher/

academic or PGR student (FTE). Only the direct Research time of academic staff is included.¹² PGR student numbers are weighted to reflect their lower use of resources.

- b. a Research estates cost rate for each of laboratory/clinical, and non-laboratory disciplines. Again this is expressed as a £ per FTE researcher/academic or PGR student.
- c. a rate for infrastructure technicians who provide general support to research projects (workshops, health and safety, maintenance, etc), but do not work on any one particular project.
- d. charge-out rates for each major research equipment or facility.

These are all referred to generically as 'indirect cost rates' in this report, but each will continue to be separately identified and applied as a separate rate under TRAC EC-FP7, as for TRAC-fEC. This is irrespective of whether the £ per FTE method or the % of direct personnel costs methods are used to calculate the rates for (a) to (c).

(iii) TRAC fEC

- 15. TRAC full economic costing for Research or TRAC fEC was developed in 2004 as part of the UK Government's reform of the dual support system. Part V of the TRAC-fEC Guidance covers this.
- 16. TRAC-fEC provides a method to calculate (and then record) the full economic costs of research projects (usually forwards over a 3-5 year time span) as a basis for improving the sustainability of research. The calculation of the full economic costs of research projects allows a cost-based price to be calculated for the UK Research Councils and Other Government Departments. These costs are then recorded during the life of the project.
- 17. All costs on research projects are classified in one of three ways. This reflects the extent to which they can be directly linked to a particular project:

directly incurred – the expenditure is represented by an invoice or timesheet, and is charged to individual projects. These include research assistants' salaries, payments made to PGR students, consumables, technicians, major research equipment. If the staff are not wholly engaged on a single project, then they complete project-level timesheets, signed off by their manager or supervisor, each month, which are then reflected in monthly charges to the project. Actual staff charge-out rates are applied to this time, calculated either individually, or in pay groups or bandings. These are verified as part of the TRAC-fEC quality assurance and validation process.

directly allocated – costs are allocated to projects using estimates. Directly allocated costs include the costs of estates, laboratory technicians providing infrastructure support, and charges for the use of major research equipment. The actual charge-out rates calculated from the output of the annual TRAC system, (ii) above, are applied to projects

¹² unlike some costing systems, outside TRAC-fEC, which do not include the Support time and costs of academics in the top-line of the indirect cost rate calculation, but include the Support time in the bottom-line by using an annual hours total in the denominator that excludes this time.

using TRAC-fEC rules. (Under TRAC EC-FP7 these costs are defined as indirect costs – see later.)

Directly allocated costs also include the costs of permanent academic staff who work on more than one project (and carry out Teaching as well as Research). They also include 'pool' technicians who work on a number of projects. Under TRAC-fEC, as neither of these categories complete project-level timesheets they are not defined as directly incurred staff. Under TRAC EC-FP7 they would complete timesheets, and be defined as direct costs, see later.

indirect costs – costs are allocated to projects using an indirect cost rate per full time equivalent (FTE) member of staff – using the indirect cost charge-out rate calculated from annual TRAC (see (ii) above).

18. Directly incurred costs are recorded as they are incurred (cash is spent). Actual costs incurred during the year are recorded against the project.
19. Under TRAC-fEC, directly allocated costs are charged on the basis of estimated use. An estimate of the time of the principal investigator and any 'pool' technicians is made, and a cost per hour is applied (based on a standard 1650 hours and either the actual salary for the individual or one that reflects a pay group average). Under TRAC-fEC, these costs are then recorded against the project during its life; and forms the basis for the Research Council funding. However, under TRAC EC-FP7, the hours eventually spent on the project by the principal investigator and the 'pool' technician are recorded on timesheets or equivalent, and the actual (or pay group average) costs for that project calculated at the end of the project. This recalculation of the personnel charge-out rates for TRAC EC-FP7 incorporates actual hours, and actual salaries.
20. Under TRAC-fEC indirect costs are allocated to projects based on full time equivalent academic and researcher staff time. Indirect costs charged to projects using the indirect cost charge-out rates are not changed from those estimated on the proposal. They are based on estimated time and estimated rates.
21. However, under TRAC EC-FP7, indirect costs are allocated to projects and are based on actual time and actual costs:
 - They are only applied to the FTEs (or staff costs) calculated from the hours that staff have recorded as actually spent on the project (evidenced through the timesheets and, where applicable, actual salary costs);
 - They are the rates calculated from the indirect costs incurred in the year that the time is being spent, and the total productive hours worked in that same year.

(iv) TRAC for Teaching

22. TRAC for Teaching or TRAC (T) was implemented in England, Northern Ireland and Scotland from 2006. Parts VII and VIII of the TRAC-fEC Guidance cover TRAC (T). This provides methods (which are optional) for institutions to use in costing and managing their core business; and methods that will produce data that could inform the public funding of teaching (there are 'minimum requirements' to be met for this). TRAC (T) develops the TRAC-fEC costs of Teaching, which are kept separate from those of Research - this area is not covered further in this report.

Section C-2 FP7 requirements

1. This Section describes the current Commission requirements for a costing model that calculates the eligible personnel costs and real indirect costs on research projects within Framework Programme 7 for use as a basis for Community funding, and how TRAC-fEC either satisfies these or could be developed to satisfy these. The costing system thus developed is called TRAC EC-FP7. The adjustments to TRAC-fEC to develop TRAC EC-FP7 are given in boxed text in this Section. They were summarised in Section B of this report.
2. TRAC EC-FP7 is a system that provides charge-out rates for indirect costs to form part of the eligible costs of appropriate research projects under FP7. It does not define all direct eligible costs, only the charges for permanent academic staff time which form part of the 'eligible personnel costs' of research projects.
3. TRAC EC-FP7 is a costing system specifically designed to provide a basis for calculating a price – the Community financial contribution - for these research projects. It does not reflect the full economic cost of those projects, which is calculated by TRAC-fEC. TRAC EC-FP7 calculates the total amount of the cost calculated under TRAC-fEC that is considered to be eligible by the Commission.
4. Only part of these eligible TRAC EC-FP7 costs will then be reimbursed through the Community financial contribution.
5. Alternative models for determining the costs of FP7 projects exist (for example, using a flat rate for indirect costs; or developing any other costing model that HEIs may currently be using, in order to determine eligible costs for FP7). The choice of the costing model used under FP7 is up to each HEI. This report, however, only describes the TRAC EC-FP7 system.

The requirements

6. The requirements to be met when establishing the eligible costs of research projects that were studied for this report are those set out in Annex II and Annex VII (Form E) to the FP7 Model Grant Agreement (version 2) adopted by the EC on 2 October 2008.
7. These have been interpreted in the light of the requirements for FP7 which are set in the Rules for participation contained in Regulation (EC) No 1906/2006 of the European Parliament and of the Council of 18 December 2006, the Model Grant agreement (version 3) adopted by the EC on 14 December 2012, the Guidance notes for beneficiaries and auditors, (Version 1) 25 July 2013 and the Guide to financial issues relating to FP7 indirect actions, Version 18/03/2013.
8. The methods also comply with the relevant sections (relating to CoM/CoMAv) of the European Commission's 'Guidance Notes for Beneficiaries and Auditors' on the Certificates issued by External Auditors (Version 25 July 2013).

Direct and Indirect costs

9. From Annex II of the Model Grant agreement (version 7) adopted by the EC on 14 December 2012

Direct costs are all those eligible costs which can be attributed directly to the project and are identified by the beneficiary (HEI) as such, in accordance with its accounting principles and usual internal rules.

Indirect costs are all those eligible costs which cannot be identified by the HEI as being directly attributed to the project but which can be identified and justified by its accounting system as being incurred in direct relationship with the eligible direct costs attributed to the project.

Indirect costs shall represent a fair apportionment of the overall overheads of the HEI. The real indirect cost method is one method of identifying these.¹³

10. Directly Incurred (DI) costs in TRAC-fEC meet the above definition of direct costs. They are items or services incurred or purchased specifically for a project. As well as Research Assistants they include consumables, travel and subsistence, equipment purchase, dedicated technicians (who complete timesheets) or other support staff, and payments to PGR (PhD) students. They can include sub-contractors costs. Actual costs are charged to projects. Full audit records are available.¹⁴
11. Principal investigator costs and pool technicians (Directly Allocated or DA in TRAC-fEC) are defined under TRAC EC-FP7 as direct costs. Audit records (timesheets detailing hours on FP7 projects) need to be produced under TRAC EC-FP7.
12. All other costs charged to research projects – whether directly allocated or indirect in TRAC-fEC – are defined as indirect costs under TRAC EC-FP7, calculated through the institution's normal accounting procedures.

¹³ There is no further definition of the 'real indirect cost' method in the FP7 Model Grant Agreement. However, the principles laid down in the FP7 papers give a good indication of the requirements for this method.

¹⁴ See Part V of the TRAC Guidance, Section D, paragraphs 3 and 4.

Adjustment for TRAC EC-FP7

Indirect costs under TRAC EC-FP7 are defined for the purpose of this report as covering:

- the TRAC-fEC Support costs of Research (indirect costs in TRAC Guidance),
- plus the TRAC-fEC Estates costs of Research (DA),
- plus the TRAC-fEC research equipment charge-out rates (DI or DA),
- plus the TRAC-fEC infrastructure laboratory technician charge-out rate (DA).

However, each rate is still calculated and applied separately under TRAC EC-FP7, as for TRAC-fEC.

Principal investigator costs and pool laboratory technicians' costs are defined as directly incurred costs, not directly allocated costs, under TRAC EC-FP7 as audit records (timesheets recording time on FP7 projects) are required.

13. It is worth reiterating guidance here concerning indexation. When an application for a project is made, all eligible costs on FP7 projects, direct and indirect, should be indexed to allow the costs to be expressed in future years' prices.¹⁵ However, under TRAC EC-FP7, only the actual costs, incurred in each year, can then be reported in the final cost statement and are eligible for the Community contribution.

Direct staff costs

14. This Guidance focuses on personnel costs as well as indirect costs. This section describes how TRAC-fEC has been amended so that TRAC EC-FP7 meets the Commission's requirements for recording and costing staff time.
15. The time and costs of academics (e.g. principal investigators), research assistants, PGR students, academic-related staff and technical, support or administrative staff who are working directly on a project are chargeable as direct costs to that project. Under TRAC-fEC, and in compliance with Commission requirements, none of these costs form part of the indirect costs.
16. The Commission's requirements for personnel costs are as follows:

¹⁵ In the UK, the only projects not indexed on application by institutions are those for the Research Councils, as the Research Councils themselves apply indices on receipt of the project applications.

Ref to Model Grant Agreement	Ref to FP7 Guide to Financial Issues	The requirement
II.14.1 (pg 17)	II.15. 1 (pg 55 - 63)	<p>With regard to personnel costs, only the costs of the actual hours worked by the persons directly carrying out work under the project may be charged.</p> <p>Such persons must:</p> <ul style="list-style-type: none"> - be directly hired by the beneficiary in accordance with its national legislation, - work under the sole technical supervision and responsibility of the latter, and - be remunerated in accordance with the normal practices of the beneficiary. <p>As there is no distinction between cost models, any beneficiary may include in its personnel costs "permanent employees", who have permanent working contracts with the beneficiary or "temporary employees", who have temporary working contracts with the beneficiary.</p> <p>Personnel costs should reflect the total remuneration</p>
II.14.1 (pg 16)	II.14.1 (pg 18-22 & 37 -41)	Beneficiaries may opt to declare average personnel costs if based on a certified methodology approved by the Commission and consistent with the management principles and usual accounting practices of the beneficiary. Average personnel costs charged to this grant agreement by a beneficiary having provided a certificate on the methodology are deemed not to significantly differ from actual personnel costs.

Time recording

17. Under TRAC-fEC, all Support, academic and research staff charged as a direct cost (DI) onto a project must complete monthly timesheets or an equivalent project-based, monthly, time recording method for each month that they work on the project. Any person not working 100% on a project is required to fill in a timesheet. If timesheets are not completed, estimated time (and costs) are charged as directly allocated (DA) costs.
18. Under TRAC EC-FP7, all academic, research, pool technician and other staff working on a FP7 project are charged as direct costs. All need to complete a timesheet or equivalent which will indicate the hours that can be charged to that project, and their total productive hours, for each month that they work on the project.¹⁶ This applies even to staff working 100% on one (or across more than one) FP7 project. These requirements replace those in TRAC-fEC.
19. All academic staff will also have completed time allocation schedules for annual TRAC in order to attribute their time between Teaching, Research, Other and Support to calculate the indirect cost rates for Research. This will continue.¹⁷

¹⁶ Guide to Financial Issues (ftp://ftp.cordis.europa.eu/pub/fp7/docs/financialguide_en.pdf)

This requirement applies to all staff working on a FP7 project, whether they are to be charged to the project or not.

¹⁷ The minimum requirements for the annual TRAC time allocation schedules are laid down in the TRAC-fEC Guidance. The methods might, for example, involve statistical sampling (of staff or periods of time), they are unlikely to include academic-related or secretarial staff, they might record percentages of time, rather than hours, they might be anonymous (and not

Adjustment for TRAC EC-FP7

Academics, researchers or other staff who work on a FP7 project **should** complete monthly timesheets (or their equivalent). These **should** start to be prepared as soon as a FP7 project on which they are named or are likely to work on has been awarded. They **should** be completed during the project's life, and up to the end of the institution's financial year that falls after their work on any FP7 project has finished.

The timesheets **should** show the actual productive hours worked by that person as follows:

- 1(a), 1(b) etc: time on each Commission project, by activity (i.e. with reference to the relevant 'action' or 'work package');
- 2: time on management and administration;
- 3: time on all other activities for the university;
- 4: total productive hours (a total of (1(a), 1(b) etc, 2 and 3 above);
- 5: time on vacation, sickness, jury leave, paternity/maternity leave.

These timesheets are used to charge hours to FP7 projects, and then to calculate the personnel costs and the indirect costs allocated to those projects. The project timesheets **should** be signed by the principal investigator and (where appropriate) their manager/supervisor.

These time recording methods are in addition to the method used under annual TRAC where all academics contribute to a survey recording their time, by activity, for a whole year, every three years. The annual TRAC method is used to calculate part of the total indirect costs for Research to be included in the indirect cost rate calculation.

Staff costs

20. The time spent by an academic on a project forms the basis of the calculation of actual salary costs on the project, and therefore the amount of funding. Total annual salary cost (including all superannuation, national insurance, allowances, etc), is divided by the total productive hours for that year.
21. There are three acceptable methods for doing this:
 - a) **calculation for actual personnel costs**
 - Actual personnel costs *per person* / actual productive hours *per person*
 - b) **calculation and way of adjustment for average personnel costs:**
 - Actual personnel costs *per person* / average/standard productive hours
 - Average personnel costs *per person* / average/standard productive hours
22. Under the two methods under (b) the total productive hours recorded by all 'FP7' academics and researchers in that year must be used.

countersigned by their manager), and they would not generally record time by individual project. These time allocation schedules are not timesheets.

TRAC EC-FP7 Guidance

23. This calculation gives an hourly rate for that individual. This is multiplied by the hours worked by that individual to give the part of the salary charged to each project.
24. If 'standard productive hours' are used in the calculation (e.g. 1650 hours) this must be replaced by an actual basis (using actual total productive hours for each year) by the end of the project to ensure that there is no under or over charging.

Adjustment for TRAC EC-FP7

The charge-out rate for each academic (their personnel charge-out rate) **should** be based on either their actual salary, or the average salary of the relevant pay band for them, whichever is the university's standard practice in their TRAC-fEC system.

Where a personnel charge-out rate for a pay band or pay group is calculated, this **should** be calculated from the real average of actual salaries being paid to individuals in that group. However, the pay bands **should** reflect a low level of deviation (highest to lowest) to ensure that the pay band average salary used to calculate for any one individual does not differ significantly from their actual salary costs.¹⁸

Each personnel charge-out rate **should** be recalculated separately for each year (this can be recorded annually or at the end of the life of the project). This recalculation should reflect, for each year:

- c) the actual salary paid to that person (or group of individuals within the pay group) for that year (this forms the numerator, or top-line, of the personnel charge-out rate calculation);
- b) the average productive hours for that individual or all individuals working on FP7 projects that are recorded during that year (this forms the denominator, or bottom-line, of the personnel charge-out calculation).

Technicians

25. The treatment of technicians under TRAC-fEC and TRAC EC-FP7 is very similar.
26. TRAC-fEC now requires laboratory technicians to be identified in one of three ways - as DI, DA (pool) or DA (infrastructure). DI and DA pool technicians both work directly on one or more projects (under TRAC-fEC DA pool technicians do not complete timesheets, but DI technicians do).
27. Under TRAC EC-FP7, costs for any technician working on a project (DI) are entered and verified via timesheets, signed off by the person in charge of their work - the DA pool category in effect vanishes.
28. DA infrastructure technicians continue to be part of the indirect cost rates under both TRAC-fEC and TRAC EC-FP7.

Adjustment for TRAC EC-FP7

The above guidance on academic staff also relates to laboratory technicians working directly on a project. Their time **should** be recorded on timesheets, and relevant personnel charge-out rates applied to the relevant hours for the life of the project.

(All technicians working directly on a project are therefore categorised as directly incurred, not directly allocated, in TRAC-fEC terminology. However, the costs of infrastructure technicians continue to be treated as part of the suite of indirect cost rates – see below.)

Summary of the indirect cost requirements

29. A comprehensive list of the Commission's requirements for indirect costs follows.

Ref to FP7 Model Grant Agreement	Ref to FP7 Guide to Financial issues	Reference in this report	The requirement
II.15.2 (pg 18)	II.15.2 (pg 68)	1	Indirect costs are all those eligible costs which cannot be identified by the beneficiary as being directly attributed to the project but which can be identified and justified by its accounting system as being incurred in direct relationship with the eligible direct costs attributed to the project.
II.15.2 (pg 18) II.15.1 (pg 18)	II.15.1 (pg 55)	2	They may not include any eligible direct costs. Depending on the characteristics of the operation in question, it is possible that some costs can be considered either direct costs or indirect costs, but no cost can be taken into account twice (as a direct cost and an indirect cost.) Direct costs are all those eligible costs which can be attributed directly to the project and are identified by the beneficiary as such, in accordance with its accounting principles and its usual internal rules.
II.15.2 (pg 88)		3	Indirect costs shall represent a fair apportionment of the overall overheads of the organisation.
II.14.1 (pg 15-16)	II.14.1 (pg 33-36)	4	Costs must be actually incurred (actual costs). That means that they must be real and not estimated, budgeted or imputed. a) they must be actual; b) they must be incurred by the beneficiary; f) they must be recorded in the accounts of the beneficiary; in the case of any contribution from third parties, they must be recorded in the accounts of the third parties;
II.14.1 (pg 16) II.14.3 (pg 17)	II.14.1 (pg 36) II.14.3 (pg 54)	5	e) they must be used for the sole purpose of achieving the objectives of the project and its expected results, in a manner consistent with the principles of economy, efficiency and effectiveness; Must not include excessive or reckless expenditure.
II.14.1 (pg 16)	II.14.1 (pg 35)	6	d) they must be determined in accordance with the usual accounting and management principles and practices of the beneficiary. The accounting procedures used in the recording of costs and receipts shall respect the accounting rules of the State in which the beneficiary is established. The beneficiary's internal accounting and auditing procedures must permit direct reconciliation of the costs and receipts declared in respect of the project with the corresponding financial statements and supporting documents;
II.14.1 (pg 16)	II.14.1 (pg 34)	7	c) they must be incurred during the duration of the project, with the exception of costs incurred in relation to final reports and reports corresponding to the last period as well as certificates on the financial statements when requested at the last period and final reviews if

TRAC EC-FP7 Guidance

			applicable, which may be incurred during the period of up to 60 days after the end of the project or the date of termination whichever is earlier;
II.14.3 (pg 17)	II.14.3 (pg 54)	8	The following costs shall be considered as non-eligible and may not be charged to the project: a) identifiable indirect taxes including value added tax, b) duties, c) interest owed, d) provisions for possible future losses or charges, e) exchange losses, cost related to return on capital, f) costs declared or incurred, or reimbursed in respect of another Community project, g) debt and debt service charges, excessive or reckless expenditure.

TRAC EC-FP7, the Guidance

1. Definition of indirect costs

Indirect costs are all those eligible costs which cannot be identified by the beneficiary as being directly attributed to the project but which can be identified and justified by its accounting system as being incurred in direct relationship with the eligible direct costs attributed to the project.

30. TRAC-fEC satisfies these requirements, as shown in costing standard 4 and the definition of Support costs in the TRAC-fEC Guidance (reference Annex 6, p19).

Adjustment for TRAC EC-FP7

The TRAC-fEC DA costs of estates, infrastructure laboratory technicians, and costs charged for research equipment using charge-out rates are also defined as indirect costs under TRAC EC-FP7.

2. Indirect costs are not direct costs

Indirect costs may not include any eligible direct costs. Depending on the characteristics of the operation in question, it is possible that some costs can be considered either direct costs or indirect costs, but no cost can be taken into account twice (as a direct cost and an indirect cost.)

Direct costs are all those eligible costs which can be attributed directly to the project and are identified by the beneficiary as such, in accordance with its accounting principles and its usual internal rules.

31. TRAC-fEC satisfies this requirement. All institutional costs are identified as either a direct cost (they relate directly to one of the three core activities of Teaching, Research and Other (consultancy)) or as a Support cost. Refer, for example, to the note at the end of paragraph 10, Section A, Part IV of the TRAC-fEC Guidance. These terms are very specifically defined.
32. Direct costs of EC-FP7 projects are direct costs under TRAC-fEC and cannot therefore be included as part of the indirect costs of Research (or any other activity).

3. Fair and reasonable cost drivers are used to attribute costs to projects

Indirect costs shall represent a fair apportionment of the overall overheads of the organisation.

33. TRAC-fEC satisfies these requirements. Parts III and IV of the TRAC-fEC Guidance cover the attribution of costs in considerable detail.
34. In summary TRAC-fEC methods are as follows:
- all institutional costs (reconciled to financial statements and based on normal accounting standards) are identified as either a direct cost that

can be directly allocated to one of the three core activities, or as a Support cost;

- Support (indirect) costs are then attributed to Research, Teaching and Other core activities, using detailed methods and principles, which ensure that the indirect costs are in as direct a relationship as possible with the eligible direct costs. For example, estates costs must be attributed to activities using space used by each department, for each activity, weighted for the type of space;
- Research Support costs therefore do not contain any Support costs associated with Teaching or with Other activities (e.g. consultancy or students residences). Three specified methods are used to calculate charge-out rates that ensure that the Support costs of Research relate to the characteristics of each research project being costed:
 - the estates costs of Research are categorised as either a Research estates cost of laboratory/clinical departments, or that of generic/classroom subjects. Each estates cost total is then divided by the direct Research time of academics, Research Assistants and PGR students (with mandatory weightings to reflect the lower use of estate by PGRs), in the relevant departments, to arrive at two £/direct FTE estates rates for Research (one for laboratory, one for non-laboratory);
 - the costs of major research facilities/equipment and of laboratory technicians that are attributable to Research, are identified and separate charge-out rates are calculated;
 - the balance of the Support costs of Research are then divided by the direct time of academics, Research Assistants and PGR students (with mandatory weightings) to arrive at a £/direct FTE indirect cost rate for Research per FTE;

All charge-out rates are based on actual costs of institutions, not estimated, budgeted or imputed costs.

- these £/FTE charge-out rates are then charged to projects based on the direct time of the academics, research assistants and PGR students working on each project. The charge-out rates applied to PGR students are weighted, consistent with the original calculation. This means that indirect costs of PGR students are identified and allocated separately from the indirect costs on academic or research staff;
- if any other Support or indirect costs are recharged to projects, through separate charge-out rates, then the total recharge for each year is deducted from the Support or indirect cost total to ensure that there is no double-counting or inadvertent inclusion of a profit margin;
- no Support or indirect costs are applied to the time of support staff on projects, such as secretaries or technicians;
- there are rules specifying the indirect costs which can be charged to projects which take into account the different nature of projects (e.g. work done off-campus, by staff in other departments or universities etc).

Adjustment for TRAC EC-FP7

Although the term indirect cost rate is used in this report to cover the charges for all indirect costs, estates, major research facilities (using charge-out rates) and infrastructure laboratory technicians costs, the separate rates for each type of indirect cost that are calculated separately under TRAC-fEC are still to be calculated and applied separately under TRAC EC-FP7.

Some activities on FP7 research projects, such as project management, can be carried out by an academic, an academic-related member of staff or an administrator. The costs of their time are charged as a direct cost and are not included in the indirect cost charge-out rates. These staff **should** be considered equivalent to academic members of staff, and charge-out rates (indirect costs, infrastructure laboratory technicians, estates) **should** be applied to the time they charge to the project. This direct time **should** be included in the denominator when the TRAC rates are next calculated, where material. This denominator would then apply to any rates calculated for any sponsors, including for the Research Councils.

Adjustment for TRAC EC-FP7

One of two methods can be used to charge indirect costs onto a project: % of direct personnel costs, or £ per FTE. Institutions **should** choose between these two methods and use the same method to recharge all of their indirect costs.

If £ per FTE rates are used, then this **should** be based on the annual TRAC calculation, however only including eligible costs.

The alternative method is to apply indirect costs as a % of direct personnel costs. This is the recommended approach as it is less onerous to calculate and apply than the £ per FTE method. It **should** be calculated as eligible indirect costs over direct personnel costs of Research for the institution (direct personnel costs of Research in all research sponsor categories including PGRs, institution/-own funded Research, and external research projects; and including both DI and DA personnel costs of academics, researchers, PGR students and other staff).

The laboratory and laboratory technician % rates, and the non-laboratory estates % rates, **should** be calculated using the direct personnel costs for the relevant laboratory and non-laboratory departments respectively, in the denominator. The indirect cost rate **should** be calculated using the sum of these two sets of department personnel costs in the denominator.

4. Verifiable and based on published financial statements

Costs must be actually incurred (actual costs). That means that they must be real and not estimated, budgeted or imputed.

- a) they must be actual;
- b) they must be incurred by the beneficiary;
- f) they must be recorded in the accounts of the beneficiary; in the case of any contribution from third parties, they must be recorded in the accounts of the third parties;

35. TRAC-fEC costs being reported for a year are based on and must be reconcilable with the audited financial statements for the year (refer Part II, Chapter B.3, paragraph 21 of the TRAC-fEC Guidance). UK accounting

conventions do not allow imputed or estimated costs to be included in financial statements, with the exception of provisions (see (8) below).

Adjustment for TRAC EC-FP7

The two TRAC-fEC cost adjustments must be excluded from TRAC EC-FP7 indirect costs. When excluding these costs:

- the net infrastructure charge **should** be excluded;
- the gross return for financing and investment **should** be excluded; (i.e. interest costs should also be excluded).

Historical cost depreciation **should** be included for buildings and equipment, not depreciation on a current cost revaluation method.

5. Economic and reasonable

e) they must be used for the sole purpose of achieving the objectives of the project and its expected results, in a manner consistent with the principles of economy, efficiency and effectiveness;

Must not include excessive or reckless expenditure.

36. TRAC-fEC and existing institutional management policy and processes, and quality assurance procedures, including internal audit, help to ensure that costs recorded in financial statements satisfy these requirements.

6. Follow accounting conventions

d) they must be determined in accordance with the usual accounting and management principles and practices of the beneficiary. The accounting procedures used in the recording of costs and receipts shall respect the accounting rules of the State in which the beneficiary is established. The beneficiary's internal accounting and auditing procedures must permit direct reconciliation of the costs and receipts declared in respect of the project with the corresponding financial statements and supporting documents;

37. TRAC-fEC satisfies these requirements. Institutions comply with the UK 'Statement of Recommended Practice: accounting for further and higher education' (the FE/HE SORP) when drawing up their financial statements.¹⁹

¹⁹ Universities UK ASBN 1 84036 101 8

The FE/HE SORP is issued by Universities UK and is produced in cooperation with sector groups in higher education and the funders of the higher education sector.

The SORP Board operates according to the guidelines of the Accounting Standards Board (ASB). The ASB has confirmed that the FE/HE SORP does not appear to contain any fundamental points of principle that are unacceptable in the context of current accounting practice or to conflict with an accounting standard or the ASB's plans for future standards.

The ASB is an operating body of the Financial Reporting Council which is the UK's independent regulator for corporate reporting and governance. The ASB sets, monitors and

38. All institutions comply with TRAC-fEC. This is based on the financial statements. TRAC-fEC then contains additional cost accounting rules that are mandatory. These requirements are enforced by all UK Funding Councils, the Research Councils and the Department for Business, Innovation and Skills.

7. Relating to the project's lifetime

- c) they must be incurred during the duration of the project, with the exception of costs incurred in relation to final reports and reports corresponding to the last period as well as certificates on the financial statements when requested at the last period and final reviews if applicable, which may be incurred during the period of up to 60 days after the end of the project or the date of termination whichever is earlier;
39. TRAC, and TRAC-fEC, indirect cost rates are calculated on actual costs, not forecast, estimated, budgeted or imputed costs. Costs incurred in 2012/13, for example, which form part of the annual TRAC return reported on 31 January 2014, are used to calculate the indirect cost rates applied to projects from 1 February 2014. These costs are indexed to current price levels.
40. Under TRAC-fEC, the indirect cost rates applying in the year that the project budget is agreed then form the basis of the indirect costs during the lifetime of the project (appropriately indexed).
41. Under TRAC EC-FP7 these are replaced with the actual rates for each period on which work is done on the project. For example:
- the rates applied to the time worked 1 February 2012 to 31 July 2012 will be based on the 2011/12/ financial year i.e. 1 August 2011 to 31 July 2012 (un-indexed);
 - the rates applied to the time worked 1 August 2012 to 31 January 2013 will be based on the 2012/13 financial year i.e. 1 August 2012 to 31 July 2013 (un-indexed);
 - the rates applied to the time worked 1 February 2013 to 31 July 2013 will be based on the 2012/13 financial year i.e. 1 August 2012 to 31 July 2013 (un-indexed);
 - and so on.
42. In the final year of a project, the final cost statement for that project may need to be prepared, but the charge-out rates for the final year are not yet available (as the financial statements or the TRAC rates have not yet been finalised). In this case, the latest year's actual rates should be applied, indexed where appropriate.

enforces accounting and auditing standards, and has statutory authority to issue accounting standards, under Section 256 (1) Companies Act 1985 as amended by the Companies Act 1989. As part of this, the ASB collaborates with accounting standard-setters from other countries and the International Accounting Standards Board (IASB) both in order to influence the development of international standards and in order to ensure that its standards are developed with due regard to international developments.

Adjustment for TRAC EC-FP7

The indirect cost rates that are applied to staff time worked during each year of a project **should** reflect the actual time worked on that project each year and the actual costs incurred each year. These recalculations **should** be carried out and reflected in the project costings by the end of the project.

a) Costs

The actual costs for each year of the project **should** be used to calculate the indirect cost rates that are applied to the project.

The actual indirect cost rates will not be available for the last months of the project when the final cost statement on a project is prepared (because the institution's financial statements or TRAC rates will not yet have been finalised). For these months:

- if £ per FTE rates are used then the latest actual rates that are available **should** be used, indexed by the UK GDP expenditure deflator;
- if % rates are used then the latest actual rates that are available **should** be used (with no indexation).

This means that at the end of each project all costs will be based on actual expenditure, not on estimate or forecast.

b) Time worked on the project

Where % indirect cost rates are used the relevant percentage rate **should** be applied to the direct personnel costs of the project that were incurred for the relevant period.

The £ per FTE method requires more complex calculations. The time actually worked on each project by each staff member **should** be converted to FTEs and the indirect cost rates per FTE (calculated using actual eligible costs only) **should** be applied to this. An example of the method that **should** be used to calculate this is as follows:

For each year of the project:

- a) the actual indirect costs from annual TRAC, abated as defined in this Guidance, and the academic/researcher FTEs for the institution as a whole established in annual TRAC, **should** be used to calculate actual indirect cost £ rates per FTE for that year (=A)
- b) the full time equivalent of the total productive hours recorded by academics and researchers during the time they worked on the FP7 project **should** be established for each year (=B)
- c) the hours charged to the project by those staff **should** be calculated as a percentage of total productive hours (=C)
- d) this % (C) **should** be multiplied by the FTE (B) to provide the number of FTEs to which the indirect cost rates for that year (C) should be applied.

A £ per FTE rate **should not** be converted to a £ per hour rate by dividing by the standard number of hours used in TRAC-fEC (1650).

(Again the term 'indirect cost rates' used here includes all of: indirect costs, estates costs, research infrastructure technicians. This term does not include directly allocated 'pool' laboratory technicians. Research facilities are indirect costs but are charged on use, not on personnel time.)

43. An example is useful here. Take the example of one academic working on a project in the course of a year and showing, on their timesheet, total productive hours of 800. Their contract of employment shows that they are contracted to the university as 0.5 FTE. They work 480 hours on a FP7 project. This is 60% of their total time. The institution's TRAC EC-FP7 indirect cost rate of (say) £36,000 per FTE per annum is then applied to 60% of 0.5 FTEs which means that an indirect cost of £10,800 is charged to the project for that individual for that year ($£36,000 * 60% * 0.5$). This would be repeated for the relevant estates rate and laboratory technician infrastructure rate if applicable.

8. Specified non-eligible costs cannot be included:

The following costs shall be considered as non-eligible and may not be charged to the project:

- a) identifiable indirect taxes including value added tax,
- b) duties,
- c) interest owed,
- d) provisions for possible future losses or charges,
- e) exchange losses, cost related to return on capital,
- f) costs declared or incurred, or reimbursed in respect of another Community project,
- g) debt and debt service charges, excessive or reckless expenditure.

44. These items are dealt with in one of three ways:

i. already excluded from the TRAC-fEC Support costs of Research:

- it is normal HE sector accounting practice that provisions for bad debts do not appear as a cost in the financial statements as the income relating to the debt is not recognised and they are therefore not a cost within TRAC-fEC;
- exchange losses – (e) above – are only an issue in terms of calculating the direct costs of a project. There will normally be no adjustment required to indirect costs;
- costs in respect of another Commission project – (f) above – are not included in TRAC-fEC Support costs;
- excessive or reckless expenditure – (g) above – was covered under point (5) above.

ii. included in TRAC-fEC, but already excluded from TRAC EC-FP7.

- interest owed (c) above; debt and debt service charges (g) above; and costs related to return on capital (e) above; are excluded from TRAC EC-FP7, see point (4) above.

iii. included in TRAC-fEC, but specifically excluded from TRAC EC-FP7, as specified below.

- identifiable indirect taxes - (a) above - include irrecoverable VAT. The UK HE sector is working towards agreeing a partial exemption method with the Government (H M Revenue and Customs). Institutions will be able to

calculate the amount they can recover and therefore the amount they cannot recover. An estimate of the irrecoverable VAT that is in the TRAC-fEC indirect cost total should be made, followed by an estimate of that which is in the TRAC-fEC Research indirect cost total. This should be excluded when calculating the TRAC EC-FP7 Research indirect cost rate.

Before the partial exemption method is agreed for the sector, universities should use their current partial exemption methodology to inform the calculation of the irrecoverable VAT total. The method for this will vary by institution. This will necessarily be a high-level calculation. An example of an acceptable method is given in Annex 3. An 'exception' on Form E covering this area is shown on the Certificate of Methodology (Annex 2);

- charges made to a provision for enhanced pension payments must be excluded, even though they are charged to income and expenditure statements under the FE/HE SORP.²⁰ However, when the payment is actually made by the HEI to the pension scheme (i.e. a cash payment is actually made by the HEI) the amount paid can be included in the TRAC EC-FP7 indirect cost total.

45. Other indirect taxes and duties (such as Customs Duty on Imports or insurance premium tax) – (a) and (b) above – are ineligible indirect costs and should be excluded. Annex 6 details examples of duties and proposed methodology for how these can be excluded from the indirect cost calculation.

Adjustments for TRAC EC-FP7

Irrecoverable VAT **should** be excluded. An indirect exclusion method can be used for this provided it is based on a fair and auditable method which can guarantee the reliability of the results. Annex 2 gives an example of an acceptable indirect exclusion method - its use would be noted on Form E (Annex 2).

VAT on overseas hotel bills and other disbursements **should** be excluded from the indirect cost rates.

Irrecoverable duties **should** be excluded.

Any exchange rate gains or losses **should** be excluded.

Charges made to a provision for enhanced pension payments **should** be excluded. When the payments are actually made from the provision (to the pension scheme), these payments **should** be included in indirect costs.

If an institution makes any other charges to a provision, these **should** be excluded from the indirect costs for Research (e.g. for restructuring, or bad debts if separately provided for).

The financing elements of the lease costs on buildings and other assets **should** be excluded.

²⁰ Employers' contributions to a pension scheme that are paid through the payroll continue to form part of the eligible costs. The only ineligible cost is the one-off charge made as an accounting entry or addition to a provision. Only cash expenditure is allowable expenditure under TRAC EC-FP7.

Quality assurance

46. The following relates to the quality assurance of the TRAC EC-FP7 methodology and the calculation of the TRAC EC-FP7 rates for FP7 projects.
47. As part of TRAC EC-FP7, institutions must carry out their own internal quality assurance processes, as specified in TRAC-fEC. They should then apply for approval of a Certificate on the Methodology (CoM), given they meet the eligibility criteria.

Application for a Certificate on the Methodology

48. Annex 2 of this report provides an example template for Form E part 'Statements to be made by the Beneficiary and corresponding procedures to be carried out by the Auditor with examples on factual findings'. Form E as included in the current annex does not represent the Certificate on Methodology as a whole but just a part of it. The whole Certificate comprises the Terms of Reference and the Independent Reporting addition to the table with the statements of the beneficiary and the auditors.
49. The Annex describes some exceptions which are relevant to TRAC EC-FP7 and should appear on the Certificate on the Methodology prepared by institutions using TRAC EC-FP7. (It should be noted that the Form E does not provide a minimum level of requirements that must be complied with, therefore exceptions may be allowable with no adverse consequence for the institution. Those described on Annex 2 have been reviewed by the Commission.)
50. The institutions and their auditors should use the standard Form E of Annex VII of the Model Grant Agreement (version 2), adopted by the EC on 2 October 2008.
51. If institutions wish to present a Certificate on the Methodology under TRAC EC-FP7, verified by their auditors, they are advised to follow the method described in the European Commission's 'Guidance Notes for Beneficiaries and Auditors' on the Certificates issued by External Auditors (Version 25 July 2013).
- 52.
53. Institutions using Average Personnel costs can apply for a Certificate on the Methodology on Average Personnel costs (CoMAv). This is part of the Certificate on the Methodology (CoM).

Verification of the Certificate on the Methodology

54. TRAC-fEC already requires an extensive amount of quality assurance to be carried out by HEIs (involving their senior managers, Committees, and internal auditors). Institutions, and the Commission, can rely on existing external quality assurance and validation processes to provide assurance on the TRAC methods. Additional audit procedures will also need to be completed by institutions' auditors or competent public officer (CPO) to meet the requirements of FP7 and cover the procedures in the Certificate on the Methodology.
55. In verifying the Certificate on the Methodology institutions can therefore ask their auditors or CPO to:
 - design and follow their own audit procedures;

- follow the audit programme described in Annex 4;
56. Not all HEIs in the UK will have been reviewed by the Research Councils. In this case, they should arrange for a Certificate of Methodology review by their own auditors or CPO. It is recommended that they should use the Research Council processes for this, described in Annex 4, to ensure that the indirect costs have been calculated appropriately (although they can prepare their own audit programme for this if they prefer).

Certificate on the Financial Statements

57. The requirements for the Certificate on the Financial Statements are not covered in this report.
58. A full description of these audit requirements, which apply to each project, are in the FP7 guidance documents (see, in particular, Annex VII, Form D – terms of reference for the Certificate on the Financial Statements):
- **For beneficiaries already having a Certificate on the Methodology for average personnel costs (CoMAv) only**, the auditor will have to perform all procedures foreseen in the Form D except for procedure 1 where the auditor will be requested to check only the part related to productive hours.
 - **For beneficiaries already having a Certificate on the Methodology covering average personnel costs and indirect costs (CoM)**, the auditor will have to perform all procedures foreseen in the Form D except for procedure 1 where the auditor will be requested to check only the part related to productive hours and for procedure 10 where the auditor will not be requested to recalculate the indirect costs rate.

(see the Commission's Guidance Notes July 2013, pp.57-58).

Adjustment for TRAC EC-FP7

The HEI **should** commission an independent audit that verifies the facts on the 'independent report of factual findings on the methodology concerning a Grant Agreement financed under FP7' (Certificate on the Methodology Form E). An example Form E part "Statements to be made by the Beneficiary and corresponding procedures to be carried out by the Auditor with examples on factual findings" is given in Annex 2 – the exceptions to the requirements described under the auditors findings are an acceptable part of TRAC EC-FP7.

This audit can be carried out at any time during the Framework Programme, but can only be done after at least one project that is costed on a TRAC EC-FP7 basis is underway.

The UK's preferred approach to the independent audit is for the university to commission a Quality Assurance and Validation audit (if not already commissioned by the Research Councils), and then add the audit of the specific TRAC EC-FP7 methods to this. An example audit programme is attached as Annex 4 (shown in two parts).

The FP7 audit requirements at a project level, i.e. for the Certificate on the Financial Statements, will be in addition to this. However, in terms of the procedures for this Certificate that cover charge-out rates, the auditors will just need to satisfy themselves that the rates calculated from the (previously verified) TRAC EC-FP7 process have been correctly applied.

Implementing this Guidance

59. Institutions that are using systems that are in compliance with TRAC EC-FP7, are in compliance with the Commission's FP7 costing guidelines. They and their auditors should be able to complete the standard template TRAC EC-FP7 part Certificate on the Methodology (Annex 2 of this report) for approval by the Commission. This should be done after the first project using TRAC EC-FP7 is underway, and before the end of Framework Programme 7.