

5 Calculation of research project costs

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5.1 Calculation of research project costs

5.1.1 Introduction

The research charge-out rates calculated by the Transparent Approach to Costing (TRAC) process are accepted by the UK Research Councils for use in cost-based grant applications. By including these rates, the full economic cost (fEC) of a research project can be determined – i.e. including the full direct costs, indirect and estates costs, and the Margin for Sustainability and Investment (MSI) adjustment. Whilst this section focuses on the calculation of project costs for Research Council purposes, institutions should use this methodology for determining project costs for all research sponsors – recognising that accepted and detailed rules on pricing and eligible costs vary by funder / sponsor. The principle for this is that it illustrates the full economic cost of undertaking a research project. This provides an informed basis for agreeing the price with research sponsors that do not fund the research they commission on an fEC basis, and for pricing projects contracted by private / commercial business or other sponsors. It is important for institutions to understand the basis of the rate calculations described in sections 3.2 to 4.2 to ensure correct application of the charge-out rates.

Comprehensive rules and procedures about how institutions should apply costs to research applications are provided by each of the UK Research Councils (UKRI) particularly through the Joint Electronic Submission (Je-S)⁵⁰ system, and by other sponsors in their respective guidance. The guidance provided in this chapter seeks to complement the UKRI information by clarifying the distinction between Directly Incurred (DI) costs and Directly Allocated (DA) costs, and providing details on the methods used to charge costs to research projects that are funded using TRAC fEC principles, with the primary focus on grant applications submitted to the Research Councils.

For Research Council funded projects, the method for estimating the amount of resource needed is described in the 'justification of resources' section on the project application form and is assessed by Research Council peer review.

Quality assurance of the recording and reporting of project costs is undertaken by the UKRI Funding Assurance Process.

The requirements in this chapter are applicable to all institutions, including those eligible for and claiming dispensation. For institutions claiming dispensation, the indirect and estates cost rates to be applied are the dispensation rates published annually by UKRI. Research facility and laboratory technician infrastructure rates are not applicable to institutions claiming dispensation.

5.1.2 The aim – What are we trying to achieve from application of rates?

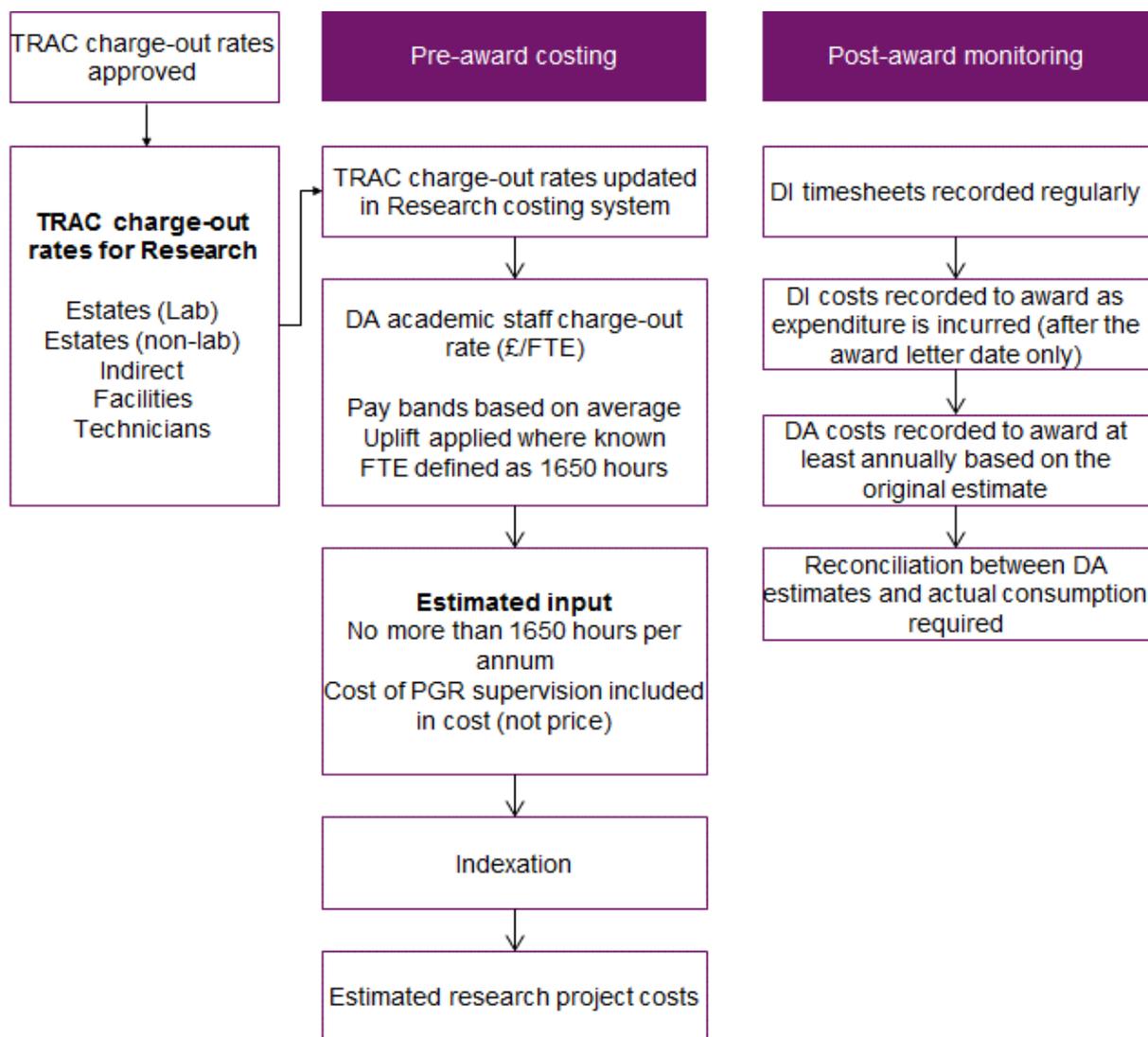
To ensure that the difference between the cost and price of a research project is clear, and to provide guidance on how to produce robust project costings for research projects.

⁵⁰ je-s.rcuk.ac.uk/

5.1.3 Process workflow

Figure 5.1 illustrates how to apply Directly Incurred (DI) and Directly Allocated (DA) project costs:

Figure 5.1: Calculation of research project costs



5.1.4 The requirements

5.1.4.1	Institutions should establish procedures for guiding academics in estimating DA research project costs and completing cost-based grant applications.
5.1.4.2	Institutions should have robust processes to ensure that DA and indirect cost charge-out rates are applied to projects correctly, using the right unit of consumption (days, hours, etc.).
5.1.4.3	In calculating charge-out rates for academic staff time, there should be adequate control procedures to ensure that staff are classified against the appropriate scale and band and that employment costs (including on costs) are updated correctly.
5.1.4.4	Institutions should ensure that no more than 1650 hours are charged to Research Council projects, by each academic or researcher in each year.
5.1.4.5	Staff record separately the academic staff time spent on supervising and training postgraduate research students (PGRs) when the PGRs are working on projects.

The requirements above apply to all institutions, including those that are claiming dispensation.

5.1.5 Process

This sub-section provides a guide for the application of Directly Incurred (DI) and Directly Allocated (DA) charge-out rates to research projects. The Research Councils also provide guidance on estimating project costs on the Je-S system⁵¹. Institutions may find it helpful to refer to this system alongside this guidance.

Directly Incurred and Directly Allocated

5.1.5.1	<p>Identify costs to be charged as Directly Incurred or Directly Allocated. (Costs can only be charged as either Directly Incurred (DI) or Directly Allocated (DA). No cost should be classified as both DI and DA. There may be instances where components of cost are split out to DI and DA (e.g. parts of a research facility), but where this is the case clear records should be held to provide evidence for the basis of the split.)</p> <p>Research Facilities and Laboratory Technicians can be classified as either Directly Incurred or Directly Allocated, but cannot be classified as both. Different parts of a resource (e.g. different parts of a research facility) can be classified differently, but the distinction should be clear.</p> <p>A research facility can be moved from DA to DI. Where this happens, new projects (bids not yet finalised) are charged with DI costs, and existing projects (bids agreed) continue to be charged as DA.</p>
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⁵¹ je-s.rcuk.ac.uk/

Calculating Directly Allocated academic staff charge-out rates

5.1.5.2	<p>When calculating charge-out rates for academic staff to be 'Directly Allocated' to projects, the process followed should be robustly calculated for every individual, or for pay groups or bands, or a combination.</p> <p>Within the calculation, the salaries or pay bands should include on-costs, allowances, honoraria and fees paid in lieu of salary, but they should exclude payments that relate solely to clinical work⁵² or academic paid overtime.</p>
5.1.5.3	<p>The charge-out rates on Research Council funded projects are costed on current staff pay scales adjusted to include average increments for the whole project, but with no indexation to start date.</p> <p>Any likely increases related to pay rises are included. Promotions and performance related pay are included where they are reasonably certain (not 'just in case').</p> <p>An uplift can be included (when appropriate) to reflect a proportion of additional payments incurred as a result of advancement on an incremental scale.</p>
5.1.5.4	<p>Pay bands are based on the average pay for appropriate staff and are recalculated at least every three years.</p> <p>If pay groups are used, these are described in a way that they will be consistently applied.</p>
5.1.5.5	<p>The annual salary costs are divided by 1650 hours when calculating hourly rates, and 220 days when calculating daily rates.</p>

Application of Directly Allocated academic staff charge-out rates

5.1.5.6	<p>Academic staff time and academic staff charge-out rates are applied robustly to estimate project costs in preparing the research proposal. Reviews are undertaken to ensure that fair and reasonable techniques are used to estimate the time likely to be required.</p>
5.1.5.7	<p>There are instructions in place for Principal Investigators and staff completing the project costings and/or the methods they should use to ensure that the correct charge-out rates are applied to each academic's time. Similar procedures may need to be documented for any central teams with responsibility for overseeing project costings.</p> <p>The academic's name should be specified and account taken of their:</p> <ul style="list-style-type: none">• grade;• eligibility (i.e. they are not wholly funded under another research project or fellowship, nor staff for whom there is no cost in the institution's records, but clinical academics whose costs are partially or wholly reimbursed can be included).

⁵² E.g. merit awards/clinical excellence awards.

5.1.5.8	<p>The charging processes should ensure that:</p> <ul style="list-style-type: none"> • the latest rates are applied to project costings once they are available, but not before the salary scales apply. This is typically achieved by either using a dedicated costing system with controlled access or through annually updated spreadsheet-based systems. The institution should have a version control system in place for its cost rates; • staff record separately the academic staff time spent on supervising and training postgraduate research students when the latter are working on projects; • estimates of staff time are either made in units (e.g. hours or days) that are the same as the charge-out rates, or are converted correctly; • no more than 1650 hours are being charged to Research Council projects, by each academic or researcher in each year⁵³. This means that a record of commitments is maintained for at least the most research-intensive staff).
5.1.5.9	<p>There are processes in place that:</p> <ul style="list-style-type: none"> • highlight cases where the estimated resource for the project proposal exceeds the time available for the academic staff member, after taking account of other commitments; • ensure that Principal Investigators are in a position to confirm or otherwise, that, broadly⁵⁴, the amount of time estimated at the start of the project has been spent by the staff on the project.

Application of Directly Allocated and indirect charge-out rates

5.1.5.10	<p>The training, support and instructions provided to Principal Investigators and other staff preparing project costs and/or the methods they should use ensure that the rates:</p> <ul style="list-style-type: none"> • are the correct institutional rates; • relate to the right time period (i.e. are updated no earlier than 1 February of each year); • are indexed correctly: <ul style="list-style-type: none"> – indirect cost rates, estates rates and infrastructure laboratory technician rates that are used to calculate charges on Research Council projects
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⁵³ If more than 1650 hours might be charged to projects for any one individual in a year, the institution investigates the case, and if there are no mitigating circumstances the Research Councils are not charged more than 1650 hours. (The work is still carried out.)

⁵⁴ 'Broadly' in this context means cumulative over the project so far, with reasonable assumptions as to future work on the project, and plus or minus 20%.

	<p>incorporate two years' indexation calculated in accordance with the guidance given in sub-section 3.1.5.28;</p> <ul style="list-style-type: none"> – Directly Incurred and Directly Allocated pool laboratory technician, research facility and staff rates are at current price levels for Research Council funded projects, but those submitted to other sponsors are typically indexed to derive Year 1 costs; – all costs are then further indexed to derive the costs for each subsequent year of the project.
5.1.5.11	<p>The charge-out rates are based on full time equivalent research staff numbers and are applied to:</p> <ul style="list-style-type: none"> • the same type of staff as are included in the denominator when calculating the indirect cost, estates, and laboratory technician infrastructure rates; • postgraduate research student numbers that are weighted (by 0.2 for inclusion in the indirect cost rate, 0.8 for the laboratory estates rate and laboratory technicians infrastructure rate, and 0.5 for the non-laboratory estates rate); • appropriate staff, irrespective of whether their institution is leading the project. <p>Charge-out rates are not applied to any researcher or academic whose time has been wholly (100%) charged to another single fellowship or research project funded by the Research Councils, Charities or Other Government Departments.</p>
5.1.5.12	<p>Facility rates that are based on units of consumption, output or process (e.g. hours, runs) are applied to the right output type or process type.</p> <p>It is clear which facilities are Directly Incurred (charged on actual usage) and which are Directly Allocated (charged on estimated usage).</p>
5.1.5.13	<p>Laboratory technician pool charge-out rates are applied to pool technician estimates based on the same unit of time.</p> <p>There are instructions to ensure that these estimates do not include any time of staff that is being charged as a Directly Incurred cost or that is considered to cover infrastructure activity.</p>
5.1.5.14	<p>The difference between costing and pricing is clear. E.g. project costs determined on a TRAC-fEC basis include the costs of supervising and training a PGR student who is a member of the project team (the costs include maintenance / stipends / academic time and indirect / estates costs) but funding from the Research Councils comprises only stipends and fees.</p>
5.1.5.15	<p>Rates applied to projects do not change during the life of the project. However, they are reviewed and updated (for latest estimates) if there is a substantial change to the programme of work; or if they apply to rolling programmes more than three years in length (for example) with a mid-term scientific review.</p>

Charging Directly Incurred and other costs to research projects

5.1.5.16	<p>Directly Incurred costs are charged to projects based on actual cost.</p> <p>Directly Allocated costs cover academic staff costs, indirect costs and estates costs. They are charged to projects on the basis of estimates, and do not change over the life of the project (subject only to major reviews or mid-term reviews on projects of more than three years duration).</p>
5.1.5.17	<p>Staff who are charged as Directly Incurred complete timesheets unless they are 100% charged onto one project or are postgraduate research students:</p> <p>The timesheets are monthly, and for each month that the member of staff works on the project should be completed:</p> <ul style="list-style-type: none"> • within two months of period end; • by the individual and signed by their manager. <p>Time is recorded against a minimum number of activity categories:</p> <ul style="list-style-type: none"> • each research council project (separately); • all other Research activity/Teaching /Other; • support (if applicable). <p>Actual productive hours are recorded, adding to the total of actual productive hours worked for each member of staff covered by the time allocation process. (This is unlikely to equal 1650 per annum. However, 1650 is still used to calculate the charge-out rate per hour, or full time equivalent).</p>
5.1.5.18	<p>Directly Incurred costs (apart from laboratory technicians and research facilities) could include:</p> <ul style="list-style-type: none"> • consumables, travel and subsistence, survey fees, equipment maintenance, purchase of animals; • directly incurred costs from other institutions working collaboratively on a project; • maternity or paternity pay, or sick pay of research assistants incurred post-award. <p>But should not include:</p> <ul style="list-style-type: none"> • maternity or paternity pay or sick pay for academics; • redundancy pay; • costs of staff providing cover for academics carrying out research; • costs of disseminating project's findings; • a contingency. <p>Where a research fellow or research assistant is working on a project but 100% of their time has already been included in another single fellowship or externally</p>

	funded research project, then no time or cost should be allocated to the new project.
5.1.5.19	<p>The cost of supervising postgraduate research students should not be part of the cost-based price for Research Council projects. Where postgraduate research costs are charged to projects these are shown separately and include:</p> <ul style="list-style-type: none"> • the time of the supervisor in postgraduate research training and development (including the time of internal and external examiners, co-supervisors etc.); • indirect and estates costs associated with the supervisor's time; • indirect and estates costs associated with the postgraduate researchers themselves (using the weightings provided at sub-section 3.1.5.27); • any direct costs incurred by the institution on behalf of postgraduate research students (travel and subsistence, consumables not included in the research project costs, stipends) excluding PGR tuition fee waivers or reductions in tuition fees as these are not costs (they are income or a reduction in income).
5.1.5.20	<p>When costing a project for Research Councils to be funded on a full economic cost basis:</p> <ul style="list-style-type: none"> • A realistic estimate of the start date is made. • There must be a realistic profiling of costs. • Pay increments for research assistants are included. • The full economic cost, proposed funding from sponsor, and sustainability margin are calculated. • No over-costing, discounts or subsidies are built into the proposed funding – they are based on full economic cost. Negotiations with Research Councils are restricted to the type and level of resources.
5.1.5.21	<p>Costs incurred on a project post-award are recorded and audit trails are retained. Directly Incurred costs are recorded as expenditure is incurred (after the date of the award letter).</p> <p>Directly Allocated and indirect costs are recorded on original estimate, at least annually.</p>

5.1.6 What could go wrong? Common areas of non-compliance

Summarised below are the more common areas where things could go wrong and/or lead to non-compliance with the TRAC requirements:

What could go wrong / areas of non-compliance
<ul style="list-style-type: none">• Redundancy and severance payments are incorrectly excluded in the indirect cost rates, and included from the salary charge-out rates.
<ul style="list-style-type: none">• Underestimating the time required to deliver cost-based projects, as this can have an impact on the recovery of cost against projects and therefore research activity at institution level.

5.1.7 Annexes

None specified for section 5.1.

5.1.8 Associated good practice and other relevant reference material

Research Council Je-S system guidance: je-s.rcuk.ac.uk/