



GRIDPP7 APPLICANT GUIDELINES

November 2022 (amended January 2023)

Proposal deadline: Thursday 2nd March 2023 (4pm)

1. Introduction

- 1.1. A full proposal coordinated by the GridPP collaboration is invited for the next phase of GridPP operations, GridPP7, for the four-year period 01 April 2024 - 31 March 2028. The peer review of the GridPP7 proposal is to ensure that the resources requested are well justified and align with the recommended UK experimental programme.

2. Objective

- 2.1. GridPP is in its operational phase supporting the deployment of the UK Grid as part of the Worldwide LHC Computing Group (WLCG) infrastructure in direct support of the LHC experiments. It provides computing resources, expertise, and training to other particle and high energy physics, and an array of other experiments.

3. Scope

- 3.1. GridPP must underpin and enable the UK particle physics programme by providing an efficient and lean service built around:
 - Physical hardware and infrastructure
 - Software running on physical hardware and infrastructure, and WLCG federal responsibilities
 - Middleware and interface to experiments, and experiment 'customer' support
- 3.2. The proposal should identify and describe the most performant delivery of the above, within the budget outlined below over the four-year period, and explain any significant differences to GridPP6. The proposal should set out the international context of the GridPP7 phase and its contribution within global initiatives, and the synergies and coordination with STFC investment in other digital research infrastructure, particularly initiatives such as SWIFT-HEP.
- 3.3. The review of GridPP6 highlighted a number of areas of consideration that should be included within the GridPP7 proposal baseline. These are:
 - 3.3.1. The efficiency and sustainability of GridPP as a service should be preserved, and so R&D activities should be included in the proposal. It should set out planned developments and innovations for GridPP7 and the future, including how the collaboration will use new technology and software to develop more efficient and cost-effective operating methods.
 - 3.3.2. GridPP should provide opportunities for a number of Virtual Organisations beyond the LHC experiments, benefitting particle and high energy physics more widely.

3.3.3. Environmental sustainability must feature within the proposal, in line with the [UK Net Zero Strategy](#) and the [UKRI Sustainability Strategy](#). A GridPP, “environmental sustainability statement”, must be included, followed by an, “environmental sustainability vision” or ‘end goal’, and the outline of a plan as to how to get there. There is an expectation that significant progress should be made within GridPP7, both in terms of implementation and planning for and evolution into potential future GridPP phases. With that in mind, understanding potential early indicators and monitoring methodologies, etc., would be beneficial.

3.4. The proposal must show progress toward improved energy efficiency compared to GridPP6, and have a methodology to monitor and evaluate progress. As with environmental sustainability more generally, it is expected that significant progress should be made within GridPP7, both in terms of implementation as well as planning for potential future GridPP phases.

4. Funding guideline

4.1. The available budget, and profile, for GridPP7 is shown in the table below. Additional capital funding at year-end(s) for hardware may become available, but is not guaranteed.

4.2. STFC must balance its ongoing support for particle physics experiments and grid computing with investment in new projects and R&D, and because funding levels beyond 2024/25 are uncertain, it is not able to commit to maintain the funding shown below. The GridPP proponents are therefore asked to prepare two funding scenarios, one for funding at the level shown below, and one at 90% of that. The funding profile is assumed to be largely flat. **Funding must not exceed the total budget shown below.** To provide a basis for developing and assessing options for future GridPP support, work packages or other readily understood activities within these funding scenarios, should be prioritised.

Budget (£M)	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	Total
Resource	5	5	5	5	20
Capital	2	2.1	2.25	2.4	8.75
Total	7	7.1	7.25	7.4	28.75

5. Timetable

5.1. The timetable for submission and review will be as follows:

Final proposal and Je-S submission (resource grants only)	2 nd March 2023 (4pm)
External peer review	March/April 2023
GridPP Review Panel meeting	May 2023 (meeting date tbc)
GridPP Review Panel meeting	May 2023 (meeting date tbc)
Science Board	June/July 2023
Outcome announced	October 2023
GridPP7 grants start	1 April 2024

6. Enquiries

6.1. Enquiries can be directed to the following staff at STFC:

Dave Brown, Senior Programme Manager Accelerators and Computing:
david.brown@stfc.ukri.org

Nicole Ashman, Programme Manager Particle Physics: nicole.ashman@stfc.ukri.org

Jane Long, Senior Grants Manager: jane.long@stfc.ukri.org, 01793442141

APPLYING FOR A GRANT

7. Submitting an application through the Je-S system

- 7.1. All proposals should be submitted online using the [Je-S login screen](#). This screen also has links to tutorials and system help. In the event of any queries relating to the Je-S system please contact the Je-S helpdesk directly by email at: JeSHelp@je-s.ukri.org or by phone on: +44 (0)1793 444164. Applicants should use the Je-S form for standard grants and should apply for a grant of four years duration. The following options should be selected in the Je-S system when putting your proposal together:

Council:	STFC
Doc Type:	Standard Proposal
Scheme:	Standard (FEC)
Call:	GridPP7
Peer Review Preference:	Particle Physics Exploitation

- 7.2. Failure to select the correct options may mean the proposal does not reach the correct Research Council or department and will ultimately result in your Je-S proposal being returned.
- 7.3. The deadline for the submission of the proposal is **Thursday 2nd March 2023, 4pm**.
- 7.4. Please note it is the responsibility of the PI to ensure that their institution's administration department submits the proposal before the submission deadline. Applicants can view the status of their proposal online by logging into the Je-S system – STFC office staff are unable to view the proposal until it is finally submitted by the institution's administration department and has undergone initial checks by the UKRI grants team.
- 7.5. Further information on how to apply for a grant can be found here: [How to submit your proposal](#).

8. Additional documents required

- 8.1. In addition to the online application form, which must be submitted through the Je-S system, the following documents are required:
- Case for support
 - Form X (GridPP6 and GridPP7)
 - Financial tables
 - Data Management plan
- 8.2. Please note, that applicants should be careful to classify documents correctly using the options available and submit as a PDF. Failure to do so will result in incomplete proposals being sent out to reviewers (e.g. documents classified as 'Other' are not sent out for review). The appendices should be uploaded as attachments to the Je-S proposal.

- 8.3. The length of the Case for Support should not exceed 40 pages, including appendices. No appendices except those prescribed by STFC should be included and they must be formatted as specified by STFC. If needed, further information may be requested by STFC.
- 8.4. All documentation (including any references provided) should use margins of a minimum 2 cm around each page and be written in one of the following fonts:
- Standard Arial 11pt (please note that this is the preferred font for STFC)
 - Helvetica Regular 11pt
 - An equivalent regular 11pt sans serif universal font e.g. FreeSans.
- 8.5. Where relevant, the principal applicant should ensure that any information is worded in such a way to protect commercially confidential or sensitive areas.

9. Costings

- 9.1. All details relating to the grant costs can be found in the [Grants Handbook](#).
- 9.2. The total cost of the project to STFC must be shown, including consolidated grant costs (where applicable) and all STFC staff and laboratory costs. There should be a breakdown of costs by financial year and by work package.
- 9.3. Consideration should be given to the whole life costs of the project, both in terms of operating costs and decommissioning costs where applicable. You should explain how the costs were derived (e.g., top down or bottom up) and give an indication and/or estimate of any further funds that may be required in future (e.g., operation costs, future upgrades).
- 9.4. **Duration:** Support will be provided for four years, for the period 1 April 2024 to 31 March 2028.
- 9.5. **Base cost:** This is the best estimate of the final cost of the project based on all known factors. It must include all known and predictable costs for the whole project. It should include the best available estimates including supplier quotations for major hardware where they are available, but should not include any allowance for uncertainty in these estimates.
- 9.6. **Working allowance:** No working allowance funding is available to request as part of the proposal.
- 9.7. **Contingency:** No contingency funding is available to request as part of the proposal.

NB. STFC template finance tables should be completed for each work package and institute as well as the overall project, with a separate table for costs related to RAL. Excel spreadsheet templates are attached.

- 9.8. **University costs:** Each institute should apply for 'new costs' on a proposal through the Je-S system. The cost to STFC (i.e., 80% fEC apart from equipment should be shown separately from the Consolidated Grant costs (if appropriate) in the Full Proposal (case for support) document. Guidance and information on completing the Je-S form can be found within the [Je-S Handbook](#).
- 9.9. **STFC Laboratory costs:** These should be shown as 100% in the full proposal document (Case for Support). Staff costs, including overheads, should be based on internal STFC costing guidance. These always count as 'new' costs and do not require a

Je-S proposal. The overheads are funded **within** the budget provided in section four of this document.

NB. The principal applicant should ensure that university and/or STFC laboratory submissions are consistent with the overall project cost contained within the proposal before these are formally submitted.

- 9.10. Inflation (i.e., indexation) should not be included. Costs will be indexed by STFC, using the rates extant at the time.
- 9.11. VAT and other taxes, such as import/export duty, should be included in all costs within the proposal where applicable.
- 9.12. **Je-S forms:** Je-S forms should also be completed and match the funding requested in the Case for Support.

10. Justification of resources

- 10.1. All costs associated with the research proposal must be justified, with the exception of estates, indirects, infrastructure technician costs, and the unit cost of TRAC-determined elements such as investigator salary costs or research facility charge-out costs, although the amount of resource required does need to be justified.
- 10.2. An explanation for all costs requested on the Je-S form must be given in the Case for Support. Each directly incurred post must be given a name or, for unnamed posts, a unique number (e.g., RA1, RA2, etc.).

11. Case for Support

- 11.1. The proposal should be clear and concise and cover the full 'business case' for support, including an explicit analysis of costs, risks, and benefits. The following points should be addressed within the body of the Case for Support:
- 11.2. **Objectives and success criteria:** The intended outputs and outcomes of the project should be stated clearly, so that the success or failure of the project can easily be determined at the end of the funded period.
- 11.3. **Project description:** The scope of the project should be described, setting out the key work areas, links to other research and the nature of the support required. Any unique contributions, the likely global impact, and areas of UK leadership should also be highlighted.
- 11.4. **Strategic fit and relevance:** The specific STFC science priorities that this project addresses should be identified. How does this fit with STFC's current scientific strategy and priorities? What aspects are particularly relevant? What is its potential impact?
- 11.5. **Awareness and context:** Describe the status of related activity nationally and worldwide and how this proposal builds on the existing Grid model. Where is this research field likely to be in 10 years' time? Does the project have a strong supportive user base among the relevant community both in the UK and internationally?
- 11.6. **Competing research:** Provide a summary of any competing (or complementary) projects or techniques and the level of investment. Some analysis of the benefits of this particular project against similar past, current, and planned future experiments worldwide should be included. What is the position of the UK within the WLCG compared to other nations? How will development in the field impact the WLCG?

- 11.7. **Track record:** Describe the proponents' track record in this field. A list of UK participants should be provided. Why is your group or consortium the best or most appropriate to carry out this project? How should the assessors be confident that you would be able to deliver the project? Please provide information on the progress of activities and objectives, and whether there were any deviations from GridPP6.
- 11.8. **Project strategy:** Describe the implementation strategy for this project and show how this will evolve during the lifetime of the grant period.
- 11.9. **Project management plan:** Information should be given about the way in which the project is to be led and managed. Further explanation can be found in the [STFC Project Management Framework](#). This must describe:
- **Project organisation and participants:** Provide a project structure diagram identifying key individuals/bodies (e.g., Project Management Board, UK Spokesperson, Project Manager, Work Package Leaders) and reporting lines. A table should also be included showing effort for each work package (total FTE per work package per year, broken down into academic and non-academic effort).
 - **Work breakdown structure (WBS)** setting out the key work-packages together with a description of the key deliverables and tasks required to deliver them. The WBS should be broken down sufficiently to allow key work-packages and activities within the project to be understood.
 - **Project schedule.** The timescale of major activities, objectives and outcomes should be clearly specified. How will this project be considered a success? Where possible, a Gantt chart showing the major milestones, and which reflects the WBS should be provided. A list of key deliverables, milestones and review points against which progress can be assessed should be given.
 - **Financial and resource plans**, covering resources allocated, cost estimates, and budgeting against the WBS.
 - Costs should be presented in a clear and understandable way.
 - Staff resource plans should include a brief description of the activity staff will undertake and the need for each post. Resource tables should specify the staff category, and the fraction of the time they will spend on the project/work-package, broken down by year (Group Leaders should give their agreement and there must be consistency with existing consolidated grants)
 - **Risk management.** Risk and how it is dealt with is a critical aspect in every project. A risk analysis, risk register, and risk management action plan should be included. All risks associated with the project should be evaluated and costed and an explanation given of how they will be controlled and managed. A template risk register is attached.
 - **Change control** procedures should be specified to enable changes to the scope, schedule or cost of the project to be identified, evaluated, and tracked. This will normally be linked with STFC's project oversight and control procedures. The interaction between CERN and the UK should be considered.
 - **Management information and reporting** arrangements should be described to enable project progress and performance to be managed effectively.

- **Outreach and Public Engagement plan.** An outline of an outreach and public engagement plan should be provided.

11.10. **Collaborative projects:** Linkages and/or collaborations with key stakeholders. Include how responsibilities are to be shared among the collaborators, both within the UK and internationally. For international collaborations, membership of the international collaboration, a brief breakdown of responsibilities within it, and the significance of the UK contribution to the project should be given. The status of approval and funding of the international experiment should be provided where applicable.

11.11. **Key stakeholders/cross-Council involvement:** The key stakeholders in the project should be identified. Describe any links to other (non-STFC) research council or research establishment (Department of Business, Innovation and Skills; Ministry of Defence; Department of Health, etc.).

11.12. **Other funding:** Describe any other sources of funding currently held or being investigated.

12. Peer review process

12.1. The standard STFC [assessment criteria](#) will be used for assessing the proposal. The science case for GridPP has already been made for the experiments and so this call is about the scope and level of GridPP support needed to support the experiments.

12.2. A peer review panel will be convened to assess the proposal for GridPP7 composed of members of the Particle Physics Grants Panel (PPGP), Project Peer Review Panel (PPRP) and computing experts. Two panel meetings are envisaged, and the panel will make its recommendations to Science Board, as well as the STFC Executive Board.

13. Impact

13.1. A separate 'Pathways to Impact' document is no longer required for grant applications. The proposal should still consider how the project will or might achieve impact throughout its duration and include this as part of the case for support. For more information on embedding impact in the proposal, please see the [impact guidance](#).

14. Data management plans

14.1. Applicants are required to provide a Data Management Plan; further information can be found in the [guidance](#) on the STFC website. Proposals must include an acceptable data management plan before a grant will be awarded.

15. Other useful information

15.1. **Cross-disciplinary or cross-council proposals:** For advice on cross-disciplinary or cross-Council proposals please see the [Grants Handbook](#).

15.2. **Unconscious bias and the peer review framework:** Details relating to unconscious bias can be found [here](#).

15.3. **Peer Review framework** information is [here](#).

15.4. **Researchfish:** Researchfish is an online system which is pivotal in demonstrating the case for investment in science. STFC has a responsibility to demonstrate the value and impact of research supported through public funding. By using Researchfish we have a central means for researchers to log the outputs, outcomes and impacts that have been realised through STFC's research funding. Outputs are then made available through the

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Research Councils' 'Gateway to Research' portal. Further information can be found [here](#).