Consultancy Project Request

Please complete this form to request a Consultancy Project from NeSI and email your completed form to support@nesi.org.nz*. If we accept your consultancy project proposal, experts from our team will work with you to achieve the project goals that we agree upon with you.*

Note that the requests you make on this form are a starting point for negotiations. It is likely that we will be in touch with you to work through changes to your proposal before we accept it as a basis for starting work.

1. Basic Information	
Project Title	

2. Details of principal investigator	
Name	
Institution	
Organisational Unit	
Phone Number	
Email Address	

3. Other Client Team Members (including collaborators at other institutions)		
Name	**Role**	**Email Address**

4. Parent Project	
It is expected that a Consultancy project will be associated with a NeSI project/allocation. If you are in the process of applying for a NeSI project state this here.	
NeSI Project ID	

5. Background, Inspiration and Problem Statement

In this section, the focus should be on overcoming software limitations that currently impair your ability to make the best use of NeSI platforms. State how you hope the consultancy work will improve your research productivity. Examples of outcomes we could assist with (this list is general and non-exhaustive):

- *Workflow parallelisation – allowing more inputs to be processed simultaneously, usually by different instances of the software running side by side*
- *Software parallelisation – use of technologies such as OpenMP or MPI to process one single input more quickly by one instance of the software*
- *Code optimisation – redesign of algorithms to improve overall speed or efficiency of resource (CPU or memory) use*
- *Improved I/O performance – work to speed up reading from or writing to the disk, or to reduce the amount of data that must be read or written*
- *Porting to GPU – accelerate code by offloading computations to a co-processor*
- *Creating/Improving a visualisation workflow pipeline*
- *Translating Python/R/Matlab code to C/Fortran for faster execution*

Preference will be given to proposals that elevate your ability to run effectively on NeSI HPC facility.

Background or Problem Statement	

Objectives and Expected Outcomes	
Expected Benefits (scientific, commercial or otherwise)	

6. HPC Readiness

Indicate to what degree your project is leveraging good programming practices. Where appropriate, elaborate by specifying which tool you are currently using.

Do you currently use source version control?	
Do you currently run tests?	
Does your code compile and run on NeSI's platforms?	

7. In-Scope	
Specify the work items involved in this project. These should relate to the objectives. Milestone dates are optional and will assist us in planning. A consultancy is expected to last up to four months.	
Work Item	**Milestone date**
7.1.	
7.2.	
7.3.	
7.4.	

8. Out of Scope
Items that are listed here are agreed to not be considered as part of this project, unless it turns out that one or more of them are essential to delivering any of the in-scope work items.

8.1.
8.2.
8.3.
8.4.

9. Additional comments

Below, please provide any additional information that could affect the success of the consultancy. Examples are intellectual property that cannot be shared with NeSI, potential issues with accessing the code due to firewall restrictions or other foreseeable difficulties.