

Pump Priming Information

In order for us to understand the complexity of a potential request, please contact us via email (epitaxyfacility@sheffield.ac.uk) before submitting an application. You will then be put in contact with a member of our growth team to discuss the feasibility of your proposal and any technical requirements. The purpose of the pump priming is to support feasibility studies, therefore only a limited amount of epitaxial material will be provided. Please note that clear epitaxy requirements within well-defined projects will be mandatory. NEF staff will be available to advise on the epitaxy aspects but not defining the pump priming project itself: this should come from the applicant's own expertise. Users should submit a completed [Pump Priming Proforma](#) outlining the strategic need for the work, the principle(s) to be demonstrated, and timescales. Also, a statement indicating how a full EPSRC proposal will be developed from the successful conclusion of the short study/demonstration should be included. Please also indicate the resources required for the project, including the associated characterization and fabrication. Please note that fabrication and characterization is normally outside of NEF provision and should be resourced by the applicant separately. Each request will be considered for peer-review by the National Epitaxy Facility Pump Priming Committee with the selection of projects based on scientific quality, strategic need, and the Facility capability. We look forward to receiving applications through the scheme.

To help you with the preparation of a successful pump priming application, please make sure the following points are addressed:

- 1. Does your proposal represent a feasibility study requiring only a limited amount of epitaxial material, in line with the guidance?*
- 2. Are your epitaxy requirements clearly stated, e.g. substrates, layers, fixed and variable growth parameters?*
- 3. Are your required materials not commercially available, i.e. there is a need for custom growth?*
- 4. Is the overall project well defined: characterisation requirements, clear principle(s) to be demonstrated, balance between novelty and development, clear success criteria?*
- 5. Is there a timely and strategic need for the work?*
- 6. Is a pathway to a full EPSRC proposal outlined?*
- 7. Are the ancillary (non-NEF) resources required reasonable and demonstrably available to support the project?*
- 8. Is the project clearly within the NEF's capability and how does it dovetail with ongoing NEF work? Please use input from your NEF contact to address this point.*