



Frequently Asked Questions

Call for Collaboration Proposals for Detectors at the Electron-Ion Collider

1) **What is a Collaboration Proposal?** The collaboration proposals should describe how the participating institutions would organize into a single collaboration that would lead the scientific development of a whole detector system. The Collaboration Proposals should also include how they would realize an experimental program that can address the priorities in the EIC community White Paper and the National Academies of Science (NAS) 2018 report. The collaboration should briefly describe the expected collaboration structure. The Collaboration Proposals should indicate if they relate to Detector 1 or Detector 2 (or either). They should describe the plan to fulfil the performance requirements from the EIC Yellow Report and how the selected technologies can be realizable within the workforce of the collaboration structure, as well as the R&D path to have mature technologies by the time of construction. Further the Collaboration Proposals need to address what level and how the in-kind contributions could be provided through the various member groups of the collaboration or through reusing existing equipment.

2) **Are there any constraints on the number of institutions and/or persons within a Collaboration?** There are no constraints on the number of institutions. The collection of institutions should provide collaboration strength compatible with the needs of the proposed Detector. It is expected that collaborations include US institutions. Collaboration members do not have to be part of the EIC User Group but it is strongly recommended to join (see www.eicug.org).

3) **What additional design and planning documents from the EIC Project may become available during 2021?** With the EIC project work continuing, further information of general relevance may become available. Examples are the detector R&D plan that describes the R&D needs to realize the Project detector (Detector 1), and further details on the installation sequencing for any large-scale EIC detector. These as well as other planning documents will be posted as reference material on the web page <https://www.bnl.gov/EIC/CFC.php>.

4) **Will there be any support from the Project to optimize the interaction region design?** The design for Detector 1 should be compatible with that of the accelerator and interaction region layout of the CDR. Some interaction region optimization may be implemented during the year and, if approved, will be passed on to the EICUG. The design for Detector 2 should be based on the interaction region conceptual layout shown at <https://indico.bnl.gov/event/10677/timetable/#9-ir2-development-status>, with perhaps some interaction region optimization. Support for the latter should be requested through the Project Executive Management Team.

5) **How detailed should the cost and schedule be?** A brief description of the cost and schedule is expected to be included in the Collaboration Proposal. A template will be provided at <https://www.bnl.gov/EIC/CFC.php>. The Collaboration may be requested to submit more detailed information during the technical review process.

6) **Will the Project help in preparing the Cost and Schedule?** The Project will make available the costing for the global detector systems (EM calorimetry, hadronic calorimetry, tracking, particle identification, magnet, electronics, etc.) that was used for the recent DOE reviews. The laboratories will provide a costing template and cost estimating guide including a basis of estimate of some common detector components. The EIC reference schedule assumptions are posted under References at <https://www.bnl.gov/EIC/CFC.php>. The laboratories also plan to provide some guidance on the schedule estimates of detector technologies as included in the EIC reference detector, and the general layouts of the assembly and experimental halls, the beam locations, etc.

7) **Will funds be available from the Project for detector R&D, or should such activities be included in the cost estimate?** Detector R&D funds to reduce project risk and meet the cost and schedule milestones for the EIC reference detector (Detector 1) as described in the CDR are included in the EIC Project. Funds are not included for activities that are required for alternate detector technologies that may lead to further risk reduction in Detector 1, that can lead to improvements in science performance of Detector 1 and Detector 2, or that can enable maximum complementarity between the two detectors. These should be outlined in the proposal.

8) **If our proposal is not selected will we be able to join another proposal?** Yes, the guiding principle is that all EIC users will have a place in the EIC experimental program. The host laboratories and the EIC Project will work with the different proponents to find optimal solutions for including all groups in efforts to address the EIC science.

9) **What is the process to address further questions?** Questions or requests for additional information should be sent by e-mail to: eic-call-det-proposal-l@lists.bnl.gov. Responses will be added to the FAQ information. In addition regular informational meetings are planned, the content will be made publicly available under the Frequently Asked Questions reference at <https://www.bnl.gov/EIC/CFC.php>.

10) **Can individual groups be a member of more than one collaboration?** This is not prohibited and is a question to be addressed by the individual collaborations.