

DESI External Collaborator Policy

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1 Introduction

As the DESI data set will support a wide range of science topics and coordinated analyses, it may happen that the DESI Collaboration seeks to augment the pool of researchers and resources that are available to carry out the work. This External Collaborator (XC) policy provides the mechanisms to review and approve such agreements.

There are many diverse circumstances in which an XC agreement could be beneficial to the Collaboration, including access to analysis codes, telescope time, or external observational, numerical, or theoretical data sets. Indeed, there may simply be a science analysis that no one in the Collaboration has interest in leading, but that the Collaboration judges would be appropriate to pursue via an XC.

In general, the motivation of the XC system is to provide scientific capability that the Collaboration is otherwise not able to provide in a reasonable and timely manner. *DESI Members are strongly encouraged as their first option to seek out and foster collaborations within the DESI Collaboration. XC applications that duplicate capability already within the Collaboration will usually be declined, unless there is a clear argument that the capability cannot be brought to bear on an appropriate timescale.* A lack of previous history in working with another Member of the Collaboration is not an adequate motivation for an XC request. Further, it must be stressed that XC requests are not appropriate as a substitute for DESI membership. DESI relies existentially on the financial and effort commitments of its Members, in addition to their substantial scientific skill, and XC applications will therefore be judged as to whether they exhibit a reasonable exchange of value for the whole Collaboration, not merely the sponsoring Participant.

Because of this sensitivity to balance the needs of individuals within the Collaboration, it is important that XC applications be *broadly advertised within the Collaboration*, as it may be that individual Members, of whom the proposers may not be aware, believe that they have the ability and interest to resolve the need internal to the Collaboration. Indeed, it is best if the scientific need is advertised, before developing an XC plan, with the hopes of identifying the needed capability within the Collaboration.

Similarly, it is critical that XC applications be made early in the project, *before the external work is conducted*. Failing to do so risks putting the Collaboration in the no-win situation of either diminishing the paid rights of existing Participant or denying authorship to an XC candidate who has already contributed to a paper. It is the responsibility of the DESI Member(s) engaged in an analysis to bring XC applications forward early, before such potential harm is done. It is important to note that, beyond tangible work, detailed discussions with aspiring XCs could result in substantive ideas arising that would often be expected to continue to co-authorship. Bringing the scientific need and possible XC application forward as quickly and openly as possible is the best way to avoid such dilemmas.

Finally, it is stressed that access of non-DESI Members to DESI non-public data and Collaboration resources requires an External Collaboration agreement even if the results of the analysis will be published after the data set is made public. DESI Members are welcome to discuss with Collaboration management, particularly the Spokespersons, regarding the schedule of data releases and how it might affect the strategy for an analysis that wishes to include non-members.

2 The External Collaboration Committee

Under this policy, the DESI Institutional Board will form an External Collaborator Committee (XCC), composed mostly of IB representatives, to review and in some cases approve the XC applications. This committee will have its membership appointed to three-year terms, with some staggering between members to encourage continuity in knowledge about cases. The Spokespersons serve ex officio on the XCC as voting members, and the IB will appoint at least one member of the Membership Committee and one member of the Publication Board to serve as non-voting observers on the committee, so as to provide a liaison to these groups.

The DESI Executive Committee will advise the DESI Director and Institutional Board chair regarding a proposed slate to the Institutional Board; however, the IB may alter this slate in its approval deliberations.

The XCC will maintain a list of approved XCs in a location accessible to the full Collaboration. It is also responsible for developing and curating any additional guidelines or examples of past practice that could guide the Collaboration in the interpretation of the XC policy.

All XC agreements are subject to periodic review by the XCC. XCs that are judged to be inactive after 12 months are subject to cancellation, after which re-application is possible.

All XCs are required to obey the relevant policies of the Collaboration, notably the Publication Policy and the Code of Conduct. Concerns regarding compliance should be raised to the XCC. Effort contributed by XCs is not tracked by the Membership Committee and does not accrue toward DESI Builder nor Continuing Participation status.

3 External Collaboration Applications

In DESI, External Collaborators should be proposed as a collaborative science project that is tightly focused and limited in scope, typically covering participation in a single DESI project, i.e., a single paper or a short series of papers. The rules and intentions regarding DESI projects are described in the DESI Publication Policy. This XC policy also describes the mechanism for the handling of joint projects with other collaborations, described in §4.

Note that mechanisms for DESI Participants and sponsored members to continue their involvement in the Collaboration after leaving a DESI institution are described in the Continuing Participant policy, which also includes a description of Continuing Collaborators. Those applications are managed by the Membership Committee and are not considered as External Collaborators.

The format of XC applications is described below. Applications must be sponsored by a DESI Participant or Continuing Participant.

XC applications should be submitted by email to desi-xcc@desi.lbl.gov and simultaneously circulated to desi-general@desi.lbl.gov. It is strongly recommended that the XC application be circulated to and discussed by the relevant WG(s) prior to the formal application.

All Collaboration Members are encouraged to voice endorsements of or concerns regarding the application, typically by email to desi-xcc@desi.lbl.gov. If the concern is more sensitive, Members are also welcome to contact the XCC Chair or the Spokespersons. This comment period will last for at least one week, after which the XCC will either render a decision or return to the applicants with a request for alterations. In unusually urgent cases, the XCC can shorten the comment period by notification to desi-general. During the comment period, the XCC will also consult with the chairs of the relevant WG(s).

86 After the comment period, the XCC will consider the case and can recommend approval to the
87 IB, which will make the final decision. Votes within XCC require the positive votes of greater than
88 50% of the voting members.

89 Announcements of XCC recommendations for approval will be sent to desi-general, at least one
90 week before the IB meets to vote regarding approval. Rejections of applications will be sent to the
91 proposers and the WG(s) chairs; these need not be announced more generally. The proposers may
92 modify their proposal based on XCC feedback and re-submit.

93 Objections to XCC recommendations will be heard by the full IB, initiated by email to the IB
94 Chair and the XCC Chair. Objections to approvals can be made by any DESI Participant and must
95 be made within a week of the desi-general announcement. Following this week, the IB will discuss
96 and vote. Objections by the applicants to the IB regarding rejections should be made within a
97 month.

98 It is stressed that the time to object is before the IB deliberation, as the IB decision is final
99 and may result in irreversible actions, such as inter-collaboration actions being taken or funding
100 proposals being submitted. Of course, it is greatly preferred that strong concerns be raised during
101 the collaboration comment period, before the XCC deliberation.

102 Further, it is noted that the XCC and IB do not meet weekly, so that the time to consider
103 and approve an XC proposal is likely to be longer than the two weeks of minimum schedule stated
104 above. Again, Collaboration Members are encouraged to apply early in their work flow, so that
105 the routine scheduling of these committees is not an impediment. Proposers should also note that
106 the creation of a DESI project requires some time, and the approval of the parent project should
107 precede the XC application.

108 The Chair of the XCC is the point of contact for inquiries about the resolution of an XC
109 application.

110 **3.1 Format of XC Applications**

111 The application should specify:

- 112 1. The name and number of the DESI project for which the applicant is requesting XC status.
113 While one project may involve multiple publications, distinct science investigations should be
114 the subject of separate XC proposals. An application for a single project can cover multiple
115 individuals. *The XCC typically cannot consider XC applications that are not based around*
116 *active DESI projects.* See the DESI Publication Policy for further information about how to
117 create a DESI project.
- 118 2. Names, institutions, and contact information for all those who would be covered by the
119 proposal, including any students and postdocs working with the applicant or applicants.
- 120 3. The WG or WGs within which the proposed project falls. Where this is not obvious, make
121 the closest choice available.
- 122 4. A brief description of the project.
- 123 5. Short (paragraph-level) biographies of the proposed XC group. In cases where the XC team
124 is large, for example because it involves an external collaboration (§4), it is sufficient to give
125 biographies for those who will be particularly involved in the analysis.

- 126 6. A description of the expertise and resources that the proposed XC would bring to the project.
127 A proposed XC should enable the DESI Collaboration to undertake and publish a scientific
128 investigation that the Collaboration would not otherwise complete before public release of
129 the data. Applications will be evaluated against this criterion.
- 130 7. Duration of the proposed collaboration. Often, this is best specified by stating what pre-
131 publication data assembly will be used in the project and covered by the application. In
132 cases where work will span multiple data assemblies, it is usually expected to be handled by
133 multiple recurring XC applications. In very unusual cases, the proposed duration may be
134 through the completion of DESI, but the application must make a convincing argument as to
135 why that level of assurance is in the best interest of the DESI Collaboration.
- 136 8. Requirements for access to data or to other non-public DESI resources, such as trac and
137 DocDB. The application should specify what level of access (if any) to pre-publication data
138 is required and how it will be provided.
- 139 9. Anticipated publication or publications from the collaborative project. While such a descrip-
140 tion will necessarily be uncertain at the outset of a project, the application should give some
141 indication of the anticipated content and number of publications from the collaboration. In
142 particular, it can be relevant whether the expectation is that paper(s) will carry a XC as lead
143 author or not.
- 144 10. Any other information relevant to evaluating the proposal, such as description of past publi-
145 cations from earlier XC work.

146 4 Inter-Collaboration Joint Analyses

147 It is likely that the DESI Collaboration will want to consider joint science analyses with other major
148 surveys. In most cases, DESI seeks to follow a format in which the collaboration managements
149 initially define a pattern for the analysis projects to follow, with the individual projects then being
150 separately approved as they begin development. In this sense, the initial statement of joint interest
151 is non-binding: either collaboration may opt not to permit a particular proposed joint analysis.

152 The collaboration managements will negotiate a statement of joint interest that expresses the
153 intended topic(s) of joint analysis and describes how individual projects can satisfy the policies of
154 both collaborations, particularly as regards publication review and co-authorship. It is possible
155 that this negotiation will propose exemptions with respect to the DESI policies, particularly if the
156 union of rules would be unworkable. However, the DESI management expects to prefer plans in
157 which the DESI policies can be applied as normal, such that the statement can simply describe
158 the places where the joint analysis should enter the usual DESI project flow. In particular, the
159 creation, pursuit, and publication of DESI projects is described in detail in the DESI Publication
160 Policy.

161 Joint science analysis proposals that are related to the topics of the DESI Key Projects and
162 mission-need science should expect higher scrutiny, as such analyses can introduce distraction
163 and diffusion of effort within the DESI analysis teams and could present questions of publication
164 schedule. Ideally, the statement of joint interest would address such concerns, and it is possible
165 that publication schedules will need to be linked to those of the DESI Key Projects.

166 The Spokespersons will conduct such negotiations on behalf of DESI. They will consult with the
167 DESI XCC, the DESI Publication Board, and the DESI Executive Committee during that process.

168 The resulting draft must be circulated to desi-general for two weeks of collaboration comment,
169 after which the XCC can vote to recommend it to the Institutional Board, who will consider it for
170 approval. The recommended draft will be re-circulated to desi-general at least one week before the
171 Institutional Board vote.

172 After such a statement is jointly adopted by the DESI Institutional Board and the external
173 collaboration(s), individual projects seeking to perform suitable joint analyses will need to create
174 DESI projects and file XC applications, including reference to the statement of joint interest. The
175 approval of those XC applications proceeds as described in § 3.

176 It is stressed that the standard that the XC application not duplicate capability already within
177 the DESI Collaboration continues to apply. In this case, this means that the use of an external
178 data set does not automatically make the project unique, as it might be that another DESI project
179 aims to produce results on the same science topic with data internal to the Collaboration. The
180 XCC will need to balance the right of the internal collaboration project to be protected from XC
181 competition relative to the scientific novelty of the combination with external data.

182 It is understood that in such cases, it often will not be practical at the time of the XC appli-
183 cation to enumerate all individuals involved; in that case, a suitable set of senior leads should be
184 documented and a clear definition given of the class of individuals to be included, as well as mecha-
185 nism to be added. It is possible that the XCC may require that they approve any new individuals;
186 this would not require a new application and consulting of the Collaboration.

187 It is possible that DESI may wish to consider inter-collaboration agreements that cannot fit into
188 the above model of a non-binding pattern followed by individual project approval. For example, it
189 may be that a collaboration is incurring a cost for which it requires a binding agreement for future
190 joint analyses to justify. Such cases will need specific ad hoc attention from the DESI Spokesperson,
191 Director, and Institutional Board.

192 *Acknowledgement:* The drafting of this policy relied on the equivalent document from the DES
193 Collaboration and some wording is repeated therefrom.

194 *Change Log:*

195 v1.01 (11/11/2019): Changed ECCom email list name from desi-eccom to desi-xcc@desi.lbl.gov.
196 v1.02 (11/24/2019): Changed all references to EC and ECCom to XC and XCC, respectively