# LSST:UK Governance

(Version 4: 2002-02-04)

### 1. Introduction

UK involvement in LSST proceeds through the activities of two organisations:

- The LSST:UK Consortium represents the scientific interest of the UK community in LSST; and
- The LSST:UK Science Centre (LUSC) conducts grant-funded work on behalf of the LSST:UK Consortium.

Figure 1 below shows the principal bodies within these two organisations and the main external entities with which they interact:

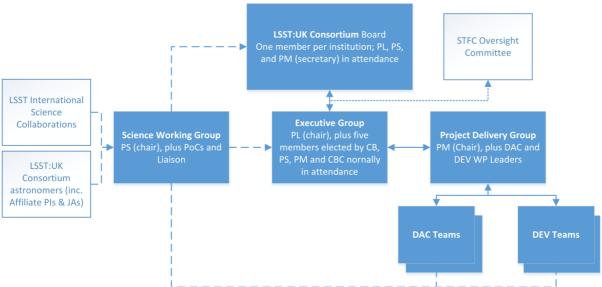


Figure 1: The principal bodies within LSST:UK and the LSST:UK Science Centre and the primary external entities with which they interact

In this diagram, solid lines trace reporting routes, while the dashed lines reflect the input that the Science Working Group receives from the wider international community and which enables it to provide scientific advice wherever it is required within LSST:UK. The STFC Oversight Committee formally receives reports from the project leadership, but these will typically have been discussed by the Executive Group prior to the submission.

## 2. Composition and role of LSST:UK and LUSC bodies

### 2.1 Consortium Board

The Consortium Board is the sovereign entity within LSST:UK and acts as a proxy for the UK community. It is composed of a representative of every UK institution with a scientific interest

in LSST<sup>1</sup>. Each institution is free to choose its own representative, excepting that the Project Leader and Project Scientist may not represent their institution on the Board. In line with the LSST:UK Equality and Diversity Statement<sup>2</sup> adopted by the Consortium Board in May 2016, institutions are requested to consider the overall diversity of the Board when selecting their Board representatives.

The Board is charged with ensuring that the activities of LSST:UK reflect the scientific interests of the UK community, so it must approve the content of the proposals seeking funding for each phase of the LUSC programme and is responsible for managing the UK community's rights to proprietary LSST data and access to associated resources.

The Board elects one of its members to be Board Chair and one to be Deputy Chair. They will normally serve for a term of three years, but the Board may vary the dates of elections (e.g. to accommodate external events) and may remove an incumbent part-way through their term. Both Chair and Deputy Chair may serve for consecutive terms, if re-elected. Role descriptions for both posts are provided in Appendix A.

Face-to-face meetings of the Board are held twice a year, at which it receives reports from the Board Chair and project leadership, including any updates of the Long-Term Plan<sup>3</sup> and the Science Requirement Document<sup>4</sup>, which are the principal, top-level planning documents for LSST:UK and which are provided by the Project Leader and Project Scientist, respectively. If a Board member is unable to attend a meeting, they can nominate a colleague to represent their institution at the meeting (with the agreement of the Board Chair). Remote participation in the meeting may be offered where attendance in person is not possible and if no stand-in can be found, but must be agreed by the Board Chair in advance. In-person participation is strongly preferred, however, to maximise engagement on the part of all members in the activities of the Board.

The Board may be consulted (and hold votes, etc) electronically between meetings, but delegates its powers to the Executive Group, on the advice of the Board Chair, when more timely action is necessary. The Board Chair may also undertake actions on behalf of the Board between meetings when urgency dictates, but will report any actions so taken to the Board at its next meeting.

The Board Chair will endeavour to achieve consensus in all decisions reached by the Board, but votes may be taken when that is not possible. The Board must decide before any vote whether, and to whom, the numerical result of the vote will be revealed and what procedure is to be used; votes of individual members must remain confidential at all times. For the result of any vote to be valid, a minimum quorum of one-third of the Board must have participated (which may include the recording of abstention). The Chair will not cast a vote unless the vote is otherwise tied. In addition to electing their own Chair and Deputy Chair, the Board also appoints the Project Leader, the Project Scientist and the Project Manager (role descriptions

<sup>&</sup>lt;sup>1</sup> Currently, this is every UK university with an astronomy group, plus Armagh Observatory & Planetarium and the UK Astronomy Technology Centre.

<sup>&</sup>lt;sup>2</sup> https://lsst-uk.atlassian.net/wiki/spaces/HOME/pages/620429315/Equality+and+Diversity+Statement

<sup>&</sup>lt;sup>3</sup> https://lsst-uk.atlassian.net/wiki/spaces/BOAR/pages/9404431/Long-Term+Plan

<sup>&</sup>lt;sup>4</sup> https://lsst-uk.atlassian.net/wiki/spaces/LUSCSWG/pages/614465537/LSST+UK+Science+Requirements+Document

for which are provided in Appendix A), elects the members of the Executive Group and approves the membership of the Science Working Group.

The Board may change the governance procedures described in this document using normal voting procedure, save that to pass such changes at least half those eligible to vote must do so, and there must be a two-thirds majority in favour of the change.

### 2.2 Executive Group

The Executive Group comprises the Project Leader (as Chair) and five members elected by the Consortium Board. The elected members may not be members of the Board, although they may attend Board meetings as stand-ins for their institution's usual representative, but in that case they may not vote on recommendations made to the Board by the Executive Group. They serve for three-year terms, with elections split into two groups (one for three posts, one for two) to ensure continuity, and may serve for consecutive terms, if re-elected.

The principal role of the Executive Group is to fulfil, on a more regular cadence, the role of the Board in providing guidance to the project leadership and ensuring that the project is progressing to the maximal benefit of the UK community. To that end, the Executive Group meets monthly, usually by videoconference, with the Consortium Board Chair, Project Scientist and Project Manager in attendance. At the time of writing, there is also a standing invitation for the Commissioning Coordinator to attend; a role description for that position in provided in Appendix A.

The Executive Group also has a quality assurance role in the assessment of project deliverables and consideration of change requests (described in more detail in the Project Management Plan<sup>5</sup>) and may provide comments (e.g. in the evaluation of pool travel proposals) when administrative tasks within the Consortium require scientific input.

Documents will usually be considered by the Executive Group prior to their submission to the Oversight Committee and to the Consortium Board, and, for the latter, they will normally carry a recommendation from the Executive Group for the action to be taken by the Board.

### 2.3 Science Working Group

The Science Working Group comprises a set of *Points of Contact* between LSST:UK and the LSST Science Collaborations (and principal working groups thereof) and *Liaisons* who maintain contact between LSST:UK and scientifically-relevant peer projects. The Points of Contact are responsible for disseminating information about the activities of the Science Collaborations throughout the LSST:UK community, while the Liaisons ensure that the scientific planning for LSST and peer projects remains in step, so far as possible, to maximise the scientific return enabled by the synergies between them. The Science Working Group also provides scientific guidance to the LSST:UK Consortium Board and LUSC Executive Group, through the Project Scientist. The members of the Science Working Group are appointed by the Consortium Board on the recommendation of the Project Scientist, who also chairs the group.

 $<sup>^{5}\</sup> https://lsst-uk.atlassian.net/wiki/spaces/LUSC/pages/580222977/LSST+UK+Science+Centre+Phase+B+Project+Management+Planular (Science) and the second control of the project of the p$ 

### 2.4 Project Delivery Group

The Project Delivery Group is chaired by the Project Manager and comprises the Work Package Leaders of all the current LUSC work packages. It meets on a quarterly basis, usually via videoconference, to share highlights and exceptions of the progress of each work package, to help the Project Manager meet his responsibilities to the Consortium Board and Oversight Committee, as detailed in the Project Management Plan.

### 3. LSST:UK Oversight Committee

STFC created an LSST:UK Oversight Committee at the start of LUSC Phase B; during Phase A it had been content for the oversight of LUSC activities to be performed by the Consortium Board. The Terms of Reference for the Committee include the following section on its remit:

"The purpose of the LSST:UK Oversight Committee is to provide oversight of the UK contribution to the Phase B project in the context of the overall project. In particular, this oversight committee is tasked with submitting a report to STFC within six months of the award, which specifically reviews the software management plans and governance to be implemented by the collaboration in order to ensure that the science potential is maximised and to justify the level of funding awarded. The continuation of the grant award will be contingent on the successful review.

"The key roles of the LSST:UK Oversight Committee are to:

- 1.1 Submit a review to UKRI STFC within six months of the grant award to provide an assessment of the software management plans and governance to be implemented by the consortium in order to maximise the science potential and to justify the level of funding awarded;
- 1.2 Ensure that the deliverables for each of the UK workpackages are met within the approved cost and schedule;
- 1.3 Monitor the overall progress of the project against agreed milestones;
- 1.4 Maintain an oversight of major risks to the project by reviewing proposals for their control and mitigation and monitoring their implementation;
- 1.5 Assess and approve as appropriate any proposals to amend the project plan or to change the design and technical specification of the project, with reference to the stated scientific requirements;
- 1.6 Support and contribute as appropriate to the project-wide reviews as requested;
- 1.7 Assess and recommend, as appropriate, requests for release of contingency and monitor use of the working allowance;
- 1.8 Receive reports from the UK Project Leader, Project Manager and Project Scientist on progress, including those relating to international partners in LSST;

1.9 Report periodically to the UKRI - STFC Executive Director Programmes.

"The Committee will normally meet twice a year in the UK with members of the project team invited to attend as appropriate. Secretarial support will be provided by UKRI - STFC. The Chair and members will be appointed by UKRI - STFC."

The Oversight Committee and Consortium Board have, therefore, complementary roles. The Consortium Board is responsible for ensuring that UK involvement in LSST proceeds to the maximal benefit of the UK community, while the Oversight Committee has a more focussed role in monitoring the progress of the STFC-funded LUSC activities.

### Appendix A: Role Descriptions

#### The Consortium Board Chair:

- is elected by the Consortium Board
- answers to the Consortium Board
- chairs the Consortium Board
- attends Executive Group Meetings
- is responsible for ensuring the Board is run in an open and fair manner
- is responsible for building a consensus (as far as is possible) for Board decisions
- is responsible for ensuring that conflicts of interest are dealt with in a fair and open manner
- is responsible for the administration of votes and elections
- must delegate their responsibilities in cases where they are conflicted (in the first instance to the Deputy Chair), but may also consider a nomination committee of unconflicted individuals for elections and other activities.

### The Consortium Board Deputy Chair:

- is elected by the Consortium Board
- answers to the Consortium Board
- undertakes the duties of the Board Chair when the Chair is prevented from doing so, either due to conflicts of interest or for other reasons.

### The Project Leader:

- is appointed by the Consortium Board
- answers to the Consortium Board
- reports to the Consortium Board and the Executive Group on the status of the project
- chairs the Executive Group,
- attends Consortium Board meetings, and may choose to attend Science Working Group meetings.
- is the primary interface between STFC and the LSST:UK, leading proposal-writing and the reporting to STFC on project status through the Oversight Committee.
- is also the primary interface between LSST:UK and the LSST Project as a whole, driving a flow of information between the two projects which enables smooth co-operation.

- is accountable for the delivery of the LUSC programme as defined in the Project Management Plan and, in collaboration with the Project Manager, is responsible for ensuring that the available resources are effectively applied to the scientific and technical goals of the project.
- is responsible for ensuring that appropriate project-management reporting mechanisms are in place
- organises the consortium's meetings
- periodically refreshes the Long-term Plan using an approach analogous to rolling-wave project management, so that more details are added as each phase approaches.

### The Project Scientist:

- is appointed by the Consortium Board
- answers to the Consortium Board
- chairs the Science Working Group
- attends both the Consortium Board and Executive Group meetings.
- is responsible for the overall scientific direction of the Project within the constraints laid down by the Consortium Board.
- is responsible for formulating, with the assistance of the Science Working Group, the technical requirements that deliver the scientific priorities of the Project.
- ensures that sufficient scientific advice (be it from within or outside of the project) is available to enable the Consortium Board and the Executive Group to make decisions on science-based matters.
- is the scientific interface between LSST:UK and the LSST Project as a whole, and especially the LSST Science Collaborations, ensuring that both sides are aware of the scientific activities of the other, and enabling co-operation where that is appropriate.
- maintains the Science Requirements Document which translates the Long-term Plan into deliverables.

### The Project Manager:

- is responsible for delivering the project objectives within the constraints of project resources and the time constraints of the funding
- coordinates of the various LUSC Work Package teams through the Project Delivery Group, ensuring that resources are managed appropriately at the funded institutions
- has the authority to run the project on a day-to-day basis on behalf of the Consortium Board and within the constraints laid down by the Consortium Board
- reports to, and takes direction from, the Project Leader with the support of the Executive Group.

#### The Commissioning Coordinator:

is responsible for coordinating the UK involvement in the LSST Commissioning process.
This will involve both identifying members of the LSST:UK community who can
contribute to the analysis of Commissioning data, and ensuring that the lessons learnt
by the LSST Commissioning Team as a whole are disseminated widely within the
LSST:UK community, so that UK researchers are apprised of the expected properties
of the data to come from the LSST survey.

# Appendix B: Revision History

- v1. Agreed by the Board 24th October 2014.
- v2. Added role description for Board Members.
- v3. Changes requested by the Board at its second meeting implemented and agreed on December 5th 2016.
- v4. Updated to account for role of LSST:UK Oversight Committee, to reflect practice during Phase A and implementing other changes requested by the Board, and agreed at its meeting on January 30<sup>th</sup> 2020.