

LSST:UK GOVERNANCE

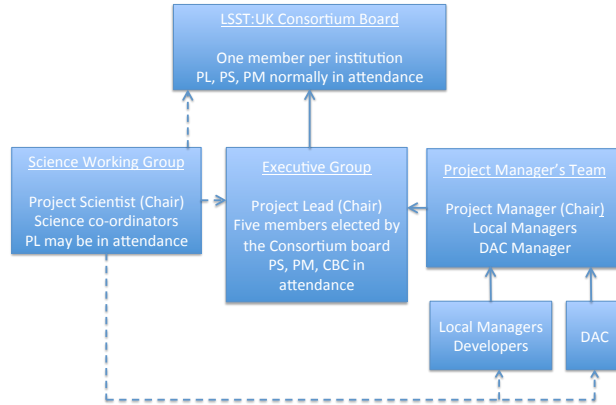


FIGURE 1. The committee structure for UK:LSST. The solid lines trace management responsibility, the dotted lines advice from the Science Working Group.

1. COMMITTEE STRUCTURE

The LSST:UK Consortium Board will consist of one member per institution and is the ultimate decision maker for the consortium. By its very nature it has a broad range of scientific expertise and represents the scientific requirements of its members, and so will drive the overall direction of the project. The month-by-month management of the project is delegated to the much smaller and more manageable Executive Group, which consists of the Project Leader (who chairs the group) and five members elected by the Consortium Board, with the Project Manager, Consortium Board Chair and Project Scientist in attendance. There is also a Science Working Group, chaired by the Project Scientist, with a group of Science Co-ordinators who reflect the breadth of science interests in the consortium. All the positions listed above are elected by the Consortium Board.

Commentary. We considered merging the Science Working Group and the Project Manager's Team since many Science Co-ordinators will also be Local Managers. But actually the roles of these two bodies are very different, with very different timescales to address.

But note that the Board still has the freedom to put all the Local Managers on the Science Working Group should it wish to do so.

2. THE PLANNING CYCLE

The overarching planning document is the *Long Term Plan* which is an outline plan for the entire project lifetime, with increasing detail as it approaches the current date. The Project Lead is responsible for maintaining this document, but it represents the views of the Consortium Board with input from the Science Working Group on science, and the Project Manager's Team for resourcing issues. In addition the Project Scientist, in collaboration with the Science Working Group will maintain the *Science Requirements Document* which translates the *Long Term Plan* into clearly defined deliverables, in a way which reflects the views of the Science working group. The *Long Term Plan* and the *Science Requirements Document* are broken down into *Six Month Plans*, which the Project Manager is responsible for maintaining with input from the Executive Group. The Executive Group then measures progress against the *Six Month Plans* by monthly telecons and targets for each developer.

At six-monthly Board meetings each six-month plan is discussed before implementation.

Commentary. We expect that the deliverables described in the Science Requirements Document will largely be software with defined functionalities which are required for the science exploitation. However, it need not be restricted to software, indeed other forms of deliverables may be a crucial part of the planning cycle.

3. DAY-TO-DAY MANAGEMENT

In between Executive Group meetings day-to-day management is carried out by the Project Manager's Team which consists of the Local Manager at each institute where there is a developer, and the DAC Manager. Since the Local Managers will often also be Science Co-ordinators the developers will have good access to relevant scientific advice. Where this is not possible they will be allocated a "remote" Science Co-ordinator to interact with.

4. ELECTIONS AND VOTES

Commentary. Whilst elections will be a normal process within the consortium we expect Board votes will be rather rare, with its business instead proceeding by consensus.

Consortium Board members are chosen by the institution they represent for any term they deem suitable. The Board will elect one of its members to be Board Chair, and one to be Deputy Chair. The Project leader, Project Scientist and Executive Group Members are elected by the Consortium Board. The Board is free to remove an incumbent part way through their term. The Science Co-ordinators are not fixed in number, but are elected by the Board such that several posts become vacant each year.

Commentary. Before embarking on elections the Board must decide (i) on the term of office and (ii) whether post holders can serve for more than one term. These are issues of balancing continuity with the need to bring in fresh ideas. Note that the post of Project Manager

is not elected, however the Board (as the final decision making body of the consortium) will have to approve whatever procedures are put in place for their appointment.

No-one may hold two or more of the posts of Consortium Board Member, Executive Group Member, Project Leader, Project Scientist, Project Manager or Developer (excepting that the Project Leader is Chair of the Executive Board). In addition Local Managers may not be Executive Group members.

Commentary. The aim is to keep the layers of management clearly separated. In particular the Board should be entirely separate from the Executive Group, as they have to call it to account. However, we do expect a flow of people between the Board and Executive Group, resigning Board positions when they are elected to the EG.

If, as a result of this rule an institution is unable to find a suitable Board member the Board may like to consider inviting a post holder from that institution to attend Board meetings, in a non-voting capacity.

Consortium Board votes and elections are confidential in the sense that only the Board Chair or their nominee (if the chair is conflicted) will know how each member has voted. The board must decide before voting whether and to whom the numerical result will be revealed. For elections they must also decide what procedure is to be used. The Consortium Board Chair will not normally vote. But if a Board vote is tied they will vote to maintain the status quo ante.

Commentary. The votes of individual members must remain confidential so no undue pressure can be brought to bear on Board members. This leaves the Board the freedom to decide how much detail of the vote the Chair should reveal. They could, for example release full numerical results, or just state which view commanded the majority. If full results are released, in the case of a close vote interested parties may seek to re-open the issue. This may be a good thing if a new way around the problem is found which has more support, or it may hinder the project moving forward. Numerical results released to a subset of the board (say the non-conflicted members) may not remain confidential. Rather than deciding this on a case-by-case basis, the Board may wish to agree a standard procedure for the release of results.

In deciding what procedure to use for elections the board might consider one member one vote or single transferable vote. The latter is more complex but means the elected member has majority support.

The Board may change the governance procedures described in this document using the 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.

5. ROLE DESCRIPTIONS

5.1. Consortium Board Chair.

Answers to the Consortium Board.

Chairs the Consortium Board.

Attends Executive Group Meetings.

Responsible for ensuring the Board is run in an open and fair manner.

Responsible for building a consensus (as far as is possible) for Board decisions.

Responsible for ensuring that conflicts of interest are dealt with in a fair manner.

Responsible for the administration of votes and elections.

Commentary. The Board Chair must delegate this 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.

5.2. Consortium Board Deputy Chair.

Answers to the Consortium Board.

Responsible for undertaking the duties of Board Chair when the Chair prevented from doing so, either due to conflicts of interest for other reasons.

5.3. Project Leader.

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.

The primary interface between STFC and the project, leading the proposal and reporting to STFC on project status.

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.

Responsible for the delivery of the project as defined in the STFC proposal and any changes agreed by the Consortium Board.

Responsible in collaboration with the Project Manager for ensuring that the available resources are effectively applied to the scientific and technical goals of the project.

Responsible for ensuring appropriate project management reporting mechanisms are in place.

Organises the consortium's meetings.

Maintains the Long Term Plan.

5.4. Project Scientist.

Answers to the Consortium Board.

Chairs the Science Working Group.

Attends Consortium Board and Executive Group meetings.

Responsible for the overall scientific direction of the project within the constraints laid down by the Consortium Board.

Responsible for formulating, with the assistance of the Project Scientist and the Science Working Group, the technical requirements that deliver the scientific priorities of the project.

Responsible for ensuring that sufficient scientific advice (be it from within or outwith the project) is available to enable the Consortium Board and the Executive Group to make decisions on science-based matters.

The scientific interface between LSST:UK and the LSST project as a whole, and especially the LSST Science Collaborations. Responsible for ensuring 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.

5.5. **Project Manager.**

Answers to the Consortium Board and Executive Group.

Reports to the Consortium Board and the Executive Group on the resourcing of the Project.

Chairs the Project Manager's Team Meetings.

Responsible for overall management of the UK-DAC.

Oversees the delivery requirements documents for all.

The technical interface between LSST:UK and the LSST project as a whole, especially the LSST Data Management Team.

Responsible for ensuring smooth interfaces between the LSST and LSST:UK software systems and avoiding duplication of systems where that is appropriate.

Responsible for coordination of the UK-DEV developers and ensuring the resources are managed appropriately at the distributed sites.

Maintains the Six Month Plans.

5.6. **Local Managers.**

Answer to the Project Manager and Executive Group.

Responsible for the delivery day-to-day management of the developers.