LISA Consortium Transition Plan

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Contents

1 ROLES

Transition Council. The Consortium Constituent Council (CCC) members and the current Working Group (WG) chairs will act as the transition Council until the first meeting of the full Council with representatives from the Member Groups, representatives from the science WGs, and the designated co-chairs from the WGs can be called. Once the first full Council is formed, the Transition Council steps down.

Spokesperson. The Chair of the CCC will act as the Spokesperson until the Consortium elects one if the need arises.

Chair of Council. The Chair of the CCC will act as the Council Chair until the first Council elects a Chair.

LST Representative. The Current LISA Science Team (LST) representative will hold this role until the first Council can hold elections for the LST representative.

Management Team (MT). The formation of the first MT will be initiated by the first Council once a Spokesperson, Council Chair and Deputy Chair have been elected. If issues arise before the formation of the MT the Transition Council will act as MT and the Chair of the CCC as the Chair of the MT.

Permanent Committees. The following committees will be part of the Consortium on its formation as defined by the bylaws:

Committee	Number of chairs	E-mail (lisamission.org)	Remarks
Bylaws	1	bylaws	New
Membership	1	membership	Former "Membership Management Team"
Appointments and Elections	1	appoint	New

Bylaws Committee. A transition bylaws committee will be formed by the Transition Council. Once the Council forms, this committee will disband and be reinstated via the Council.

Membership Committee (MC): A transition MC will be formed by the Transition Council and include the current composition of the former Membership Management Team. The transition MC will review the applications and accept new members into the Consortium as outlined in the Policies and Procedure document. Once the Council forms, this committee will formally disband and be reinstated via the Council.

Appointments and Elections Committee. The Transition Council will form a transition Appointments and Elections Committee. This committee will initiate and run the elections and appointments. Once the Council forms, this committee will disband and be reinstated via the Council.

Other Committees Not Defined in the Bylaws. Other committees and all additional committees not specified in the bylaws may be formed by the Council once it is in place. The following committees will be formed at the onset of the Consortium:

Committee	Number of chairs	E-mail (lisamission.org)	Remarks
Diversity Equity Inclusion	1	diversity	Former "Diversity and Inclusion group"
Publication and Presentation	1	pubcomm	Former "Publication"
Communication	1	comm	Advisory Committee

Descriptions of these committees are given in the policies and procedures document.

Support Team. This staff group will gather non-scientist core members (e.g., administrative personnel, web developers, and so on) who are contributing to the Consortium via their participation into management teams and service committees. Members of this group will receive representation in the Council via their chair. It is not expected that this group will have specific projects as a whole.

Ombuds Office. The Spokesperson will form the Ombuds Office as soon as possible after their election as defined in the bylaws.

Member Groups (MG). Once formed, member groups will name their Council representative from the core members of their group. The procedure for election is decided by each MG.

Working Groups (WG). The WGs listed in the following table will form at the onset of the Consortium.

For established WGs that continue from the old Consortium, the current chairs will remain in their roles and will oversee the process of reforming their WGs based on the sign-up portal. Terms for chairs are spelled out in the bylaws document. They will be responsible for curating the WG projects for Core members to sign up.

For new WGs listed below, the Transition Council will form them and assign temporary chairs until elections can be carried out for new WG chairs.

New WGs not listed below may be formed by the Council in the future, incorporating work, e.g., from Work Packages that does not fit completely in the existing WGs.

List of WGs:

Working Group	Science	N. chairs	E-mail (lisamission.org)	Remarks
Astrophysics	✓	2+2	astro-wg	
Cosmology	✓	2+2	cos-wg	
Fundamental Physics	✓	2+2	fp-wg	
Instrument Simulation and Processing	✓	2+2	isp-wg	New. Merger of former "FMT Simulation Expert Group", "FMT On Ground Instrument Processing Expert Group" and "TTL-EG".
Instrumentation	✓	2+2	instru-wg	New
Data Analysis R&D	✓	2+2	simdata-wg	New
Waveform	✓	2+2	wav-wg	
Communications Implementation		2+2	comm-wg	Merger of former "Advocacy & Outreach WG" and "LISA Social Media + Web Team"
Early Career Scientists		2+2	ecs-wg	Former "LISA Early Career Scientist Group"

2 SHORT DESCRIPTION OF WORKING GROUPS

Astrophysics WG The LISA Astrophysics Working Group aims to maximise the science return of the LISA mission. This will be achieved by interpreting the LISA detections in the context of how astrophysical gravitational wave sources have formed and evolved in their native environments. In order to do so, several science investigations will need to be developed. This work can range from studies and simulations of individual sources, to studies of populations of sources, formation mechanisms, and astrophysical processes that drive evolution of sources relevant to LISA science, as well as multi-messenger synergies, and eventually interpretation of LISA data. The "Astrophysics with LISA" white paper is an important resource of all the Astrophysics investigations that gravitational wave detections with LISA will enable.

Cosmology WG The LISA Cosmology Working Group is dedicated to exploring and advancing the scientific potential of LISA to study cosmology. Its primary goal is leveraging LISA's unique ability to detect gravitational waves to address fundamental questions about the universe's large-scale structures and expansion history. The Working Group aims at developing methodologies and models to use LISA data to test cosmological theories, probe the early universe, and refine our understanding of high-energy physics phenomena. Through interdisciplinary collaboration, the LISA Cosmology WG seeks to maximize the mission?s contributions to cosmology and strengthen the synergy between gravitational wave astronomy and traditional observational methods.

Fundamental Physics WG The Fundamental Physics Working Group will focus on exploring how the LISA mission can be used to address key questions in fundamental physics. The group aims to provide a bridge between the scientific community working on fundamental physics and the LISA mission. Among others, one of the objectives of the group will be to develop the tools needed to perform precision tests of gravity, test the nature of supermassive compact objects, and search for potential signatures of new physics beyond the Standard Model, with LISA.

Data Analysis R&D WG . We expect that people in the consortium will continue to develop data processing methods for space GW missions and the Consortium is an excellent place to bring those activities together. This platform gives a lot of freedom to investigate the bleeding edge data analysis techniques (for example based on machine learning) and improve the methods which are planned by the LISA ground segment. We can benefit from the usual scientific interactions in the consortium, but can also be coordinated with the DDPC and NSGS project work. There can be several WGs on sub-aspects of these activities. All are perfect entry points for new people interested in data analysis. In addition, the Consortium can play a role in keeping the connection between all international participants to the LISA mission project. Current projects are

- Figure of Merit project
- LDC: LISA Data Analysis Living Reviews
- Analysis of LISA data challenges

Instrument Simulation and Processing WG Our goal in this Working Group is to bridge the gap between instrument knowledge and astrophysical data analysis by developing and refining simulation and data pre-processing techniques. We will focus on LISA instrument simulation and key data pre-processing activities, such as time delay interferometry (TDI) and tilt-to-length (TTL) coupling correction. These efforts are crucial for ensuring the accuracy and robustness of the scientific data extracted from the mission. This WG will integrate expertise from the former FMT expert groups on simulation, on-ground instrument processing, and tilt-to-length coupling. Beyond LISA, the methodologies and tools developed here will have broader applications, including future gravitational wave missions and LISA follow-ups. By fostering knowledge transfer from the project to the wider consortium community, we aim to maximize the scientific return of LISA while also contributing to the preparation of next-generation missions.

Instrumentation WG Hardware People, Sign Up Here! This is the primary group for any individuals working on any part of the mission hardware or related equipment and experiments. The Instrumentation Working Group is expected to contain individuals working on the mission hardware be it the development of Engineering, Qualification, and Flight models, or any of the Ground Support Equipment to verify and test those models. This working group aims to ensure the wider Consortium has access to individuals working directly on the hardware when the need to discuss aspects of the instrument arises. It is expected that the Working Group will be formed of sub-groups that cover areas of the instrument such as but not limited to; IDS, GRS, and SDS.

Waveform WG One of the important activities of the Consortium should be to form a central interface between waveform development and the LISA mission. We expect that the DDPC and NSGS will provide fast, efficient waveform generators for all LISA sources that are part of the science objectives reflected in the Red Book. However, development of the waveform models

themselves will take place in the community outside the DDPC/NSGS. The Waveform Working Group will identify modeling needs and organize activities to ensure waveform models meet the requirements of the DDPC/NSGS and benefit the broader science activities of the Consortium.

Communications Implementation WG The Communications Implementation Working Group aims to coordinate and implement all consortium communications activities together with the guidance of the Communications Committee. The WG aims to gather interested individuals who wish to participate in outreach and science communication. The WG has a variety of goals from; the creation of materials to the support of conferences, to advocacy of the LISA, GW, and STEM. The WG runs social media activities, regular calls, and meetings. We will allow WG members to contribute according to their individual time constraints, and maintain a flexible approach as the mission and the wider environment evolves. We aim to support communications initiatives and outreach projects from other consortium groups, and the wider community.

Early Career Scientists WG The Early Career Scientist Group (LECS) is a group within the LISA Consortium designed to gather and support consortium members at an early stage of their careers (PhD students, postdocs, assistant professors, etc.). The main goals of the group are to discuss the needs and values shared by younger researchers, support career development, foster collaboration, and promote the participation of early career scientists in leadership positions. Overall, LECS strives to provide a strong voice to represent the younger generations in the consortium and lay the foundations for a functional, enjoyable, and inclusive work environment within LISA.

3 ELECTIONS

Election Procedures. All elections shall follow the bylaws section 6.6 with the following special cases for the start-up of Consortium entities, to ensure that the chairs do not all come up for election at the same time.

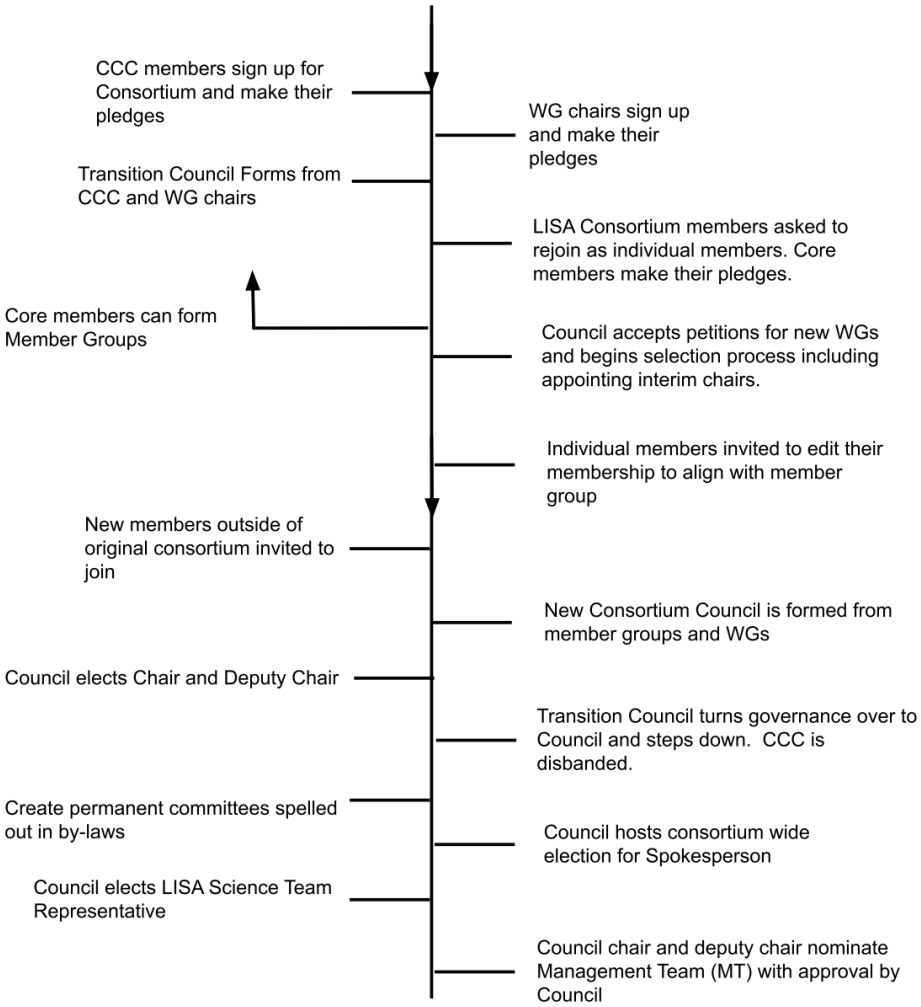
- The first Council will have the following election schedule for their first terms: 1/3 of Council members serve a 1-year term, 1/3 a 2-year term and 1/3 the normal 3-year term. Any rules about consecutive terms do not apply to representatives serving shorter than usual terms. The choice of whom to rotate off will be randomly generated.
- The chairs of new WGs will also rotate off in a special manner. The WGs with 4 co-chairs will rotate 1 senior at year 2 and 1 early career at year 1. The WGs that do not have 4 co-chairs, will stagger their elections. The WG chairs will decide whom to rotate off.

Council Representation.

- Science WGs: Once formed, science WGs will call for a vote to elect representatives to the Council as described in the bylaws.
- Other WGs: representation will be via the chairs or their delegates but will not have extra representatives as described in the bylaws.
- MGs: any MGs that have 10 or more core members can choose a representative to the Council as described in the bylaws.

4 TIMELINE

The timeline of events to establish the management structures in the new Consortium is illustrated here:



5 IT SYSTEM DEPLOYMENT

The new functionalities of the Directory have been deployed online on February 27th, 2025. Debugging and adjustments will be done with the first batch of applications by CCC members and WG chairs.

A Membership Quick Guide illustrating the new features of the Directory about membership, service tracking and group formation will be circulated among all Consortium members shortly before the call for membership applications. It will also be available at the sign-up page together with the Bylaws, Policies and Procedures, Code of Conduct, Work Plan and Consortium Transition documents.

6 SIGN-UP OF INDIVIDUALS AND MEMBER GROUPS

Sign-up will be done in two phases: first individually and then in Member Groups.

Individual sign-up Individual sign-up will open soon afterwards with four calls issued by the Transition Council.

1. First group of applications on **March 24th 2025** by current CCC members and WG chairs, following the established sign-up procedure. Possible issues will be analyzed and fixed. Feedback can be sent to the MC e-mail address membership@lisamission.org.

2. Second, third and fourth group of applications open to current Consortium members with family name A-I, J-R, S-Z will be issued every two weeks in April and May 2025. Feedback can be sent to the MC e-mail address membership@lisamission.org.

Member Group creation The creation of member groups (minimum 5 people) will be possible by any core member at the start of their membership through a host hosted in the Consortium Directory (see the Membership Quick Guide). Upon creation, a Member Group will be immediately available in the sign-up form for selection. Individuals will be able to join the group either via the sign-up form (if they are not yet Consortium core members) or from the Directory if they are already core members. In the latter case, a link to the group page will be provided to the group leader by the system and, afterwards, to prospective members by the leader.