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| The Extreme Light Infrastructure Delivery Consortium  ELI ERIC Documents  Final Presentation – September 12, 2019 |
| **Appendix 1 - The ELI ERIC Management Operations Model** |
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**Background**

This document describes the strategy for ELI-ERIC to provide service to its Members in the form of ‘User Access’, and how it will integrate the ELI facilities. It describes the objectives of ELI-ERIC as stated in the ELI-ERIC Statutes. It also defines how to transition responsibilities from the ELI Host Institutions – the institutional partners who constructed the ELI Facilities – to the ELI-ERIC organisation. It describes the framework of an ELI ERIC Management System and the operational agreements, as well as information linking member contributions and costing.

**Considerations**

The document is for the benefit of the Members and potential members to clarify how the facilities will be managed and shared, especially in the transitional time between construction and steady-state operations.

It describes the future ELI ERIC Management System and how it relates to the strategy to integrate the management and operations of the ELI Facilities. It still includes some costing information and how it relates to contributions and the milestones for integration. An outline is included of the future operational agreements between ELI ERIC and the Host institutions that built the ELI Facilities.

This document also includes a list of important definitions used in this and other foundational documents for discussing topics related to ELI ERIC.

This version includes updates of the definitions at the end of the document to ensure consistency with the Statutes as well as the mention, suggested by the UK, that no investment or construction costs will be paid for by Member Contributions, which are reserved for Initial Operations, Steady State Operations and Upgrades after 2022 only (see section 6).

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# Purpose and Scope of This Document

The Extreme Light Infrastructure ERIC (hereinafter referred to as the ‘ELI ERIC’) enters its operations phase starting in 2019.

This document describes the objectives of ELI ERIC as stated in the ELI ERIC Statutes and based on an accompanying document, the *ELI Technical and Scientific Description*. This document describes how ELI ERIC will provide services in the form of ‘User Access’ to its Members, and how it will integrate the ELI Facilities into a single organisation. It provides a framework to transition responsibilities from the ELI Host Institutions – the institutional partners who constructed the ELI Facilities – to the ELI ERIC organisation, so that it may fulfil its mandate to coordinate the ELI Facilities according to the ELI ERIC Statutes.

The *ELI Technical and Scientific Description* defines the scientific and technical scope of ELI and tells ‘what’ is being provided by ELI ERIC, in terms of facilities for users, and when those facilities will be available. Both budgetary and schedule elements are indicated. This information is a reference for the ELI ERIC Statutes and is the basis for agreements between ELI ERIC and the Host Countries on how to make the ELI Facilities available for ‘User Access’.

# Mission and the Scope of ELI ERIC

The ELI ERIC is a research infrastructure supporting experiments and the development of advanced technologies based on extreme light-matter interactions at the highest intensities, shortest timescales and broadest spectral range. This is consistent with the ELI ERIC Statutes. The research infrastructure aims to provide world leading tools and facilities for multidisciplinary scientific and technical applications.

# Scientific Evaluation Policy

According to the ELI ERIC Statutes (‘Scientific Evaluation Policy’), ELI ERIC ‘…shall ensure that research carried out by use of ELI meets the highest standards of quality and excellence, and shall promote training and exchange on best practice. Impact assessment shall provide information on research policy and allocation of resources that support these standards’. This evaluation is the responsibility of ELI ERIC and supported by all the Members.

The ELI ERIC shall establish a quality system for monitoring and ensuring consistent excellence in facilitating scientific research. This shall be done with the International Scientific and Technical Advisory Committee (hereinafter referred to as ‘ISTAC’), Strategic Partners, and the support of expert advisors. That system shall be structured, reproducible, and applied consistently across all the ELI ERIC Facilities. The system shall be the cornerstone of the overall ELI ERIC Management System.

# User Access

For the purpose of clarity, ‘User Access’ shall mean access to the ELI Facilities for scientific research, with an emphasis to publish and create new knowledge. The ELI ERIC Statutes clearly indicate (‘Access Policy for Users’) an excellence-based, open access policy for users.

Access to the ELI Facilities will be competitive, international, and open to users from within and outside the Members countries, based on principles established in the European Union Charter for Access to Research Infrastructures[[1]](#footnote-2). All ‘User Access’ must be subject to peer review. ELI ERIC will ensure a common access point for users responding to a unified call for proposals, including all the available capabilities of the ELI Facilities in an integrated way.

If access is ‘open’ it means that the ELI Facilities are open to potential researchers from any country. Being ‘open’ also means the data and eventual use of the data in publications shall be available and reviewable to anyone.

In addition to ‘open’ access, there is also be ‘proprietary’ access, which is paid by the user and thus the results in the form of data may be the property of the user and ‘closed’.

There will also be possibilities for access to technology development in terms of collaboration on innovation initiatives and procurement. Training and education for capacity is a priority for the Members and the European Research Area, but may also extend beyond the Members. Commercial use within the limits normally applied in similar research infrastructures is also planned.

# Technical Innovation

In addition to the scientific scope and mission, ELI ERIC also has a mission to pursue excellence in technical innovation. As per the ELI ERIC Statutes, ELI ERIC is responsible to ‘…develop a policy and strategy for innovation, including intellectual property, know-how exploitation, and support to industrial developments and users.’ The ELI ERIC Statutes define the basic parameters of an ‘Innovation and Industry Policy’ to guide strategic activities in that areas. These activities shall be considered fully integrated, and are the responsibility of ELI ERIC from its establishment.

# Objectives of ELI ERIC

Collectively, the ELI Facilities will form the most unique and advanced user laser research centre of its kind, bringing Europe to the lead in this innovative field. It will significantly contribute to the development of the broader European Research Area and strengthen ties between researchers in Central-Eastern and Western Europe.

The ELI Facilities have been built taking into account the conceptual design of the ELI ‘White Book’, formed during the preparatory phase. This was the basis of the current design and implementation ELI as an integrated organisation, as well as for each individual ELI Facility.

# Role and Responsibilities of ELI ERIC

As stated in the ELI ERIC Statutes, ‘Tasks and Activities’, ‘ELI ERIC shall operate the ELI as a single research infrastructure comprised of the ELI Facilities built through the implementation projects.’

In addition to the specific responsibilities listed in the ELI ERIC Statutes, the term ‘operate’ specifically means that, from establishment, ELI ERIC shall have a clear mission and responsibility for the operation of the research infrastructure. That includes the following:

* Define the overall strategy;
* Provide and support effective access to the research infrastructure;
* Define common standards and improve interoperability among the ELI Facilities;
* Provide or support training and facilitate mobility of researchers and technical and administrative personnel;
* Support technology transfer activities.

# Timing and Transition to Operations

The Initial Operations Period is a transitional time period when the ELI Facilities are completing the Implementation, or Construction Phase, and beginning the Operations Phase. This means that activities from two distinct phases are overlapping. There is no one point in time when a clear switch from one phase to the other takes place. The ELI Facilities are being completed on independent schedules.

For that reason, ELI ERIC and the Host Institutions (the legal entities that are responsible for the ELI Facilities) will identify a combination of technical and organisational milestones that signal this transition incrementally. More is discussed about this in sections four (4) and five (5).

The Initial Operations period corresponds to the period covering the peer reviewed completion of the scientific instrumentation, which is to be made available for access to users through ELI ERIC. This period is foreseen from 2019-2021, specific for each of the respective ELI Facilities.

In that period, operational agreements between ELI ERIC and the Host institutions will be put in place. Those agreements, supported by the respective Host Members, will enable ELI ERIC and the Host Institutions to organise access of users selected by ELI ERIC to the ELI Facilities. The agreements will also enable the transfer of direct operational responsibility to ELI ERIC.

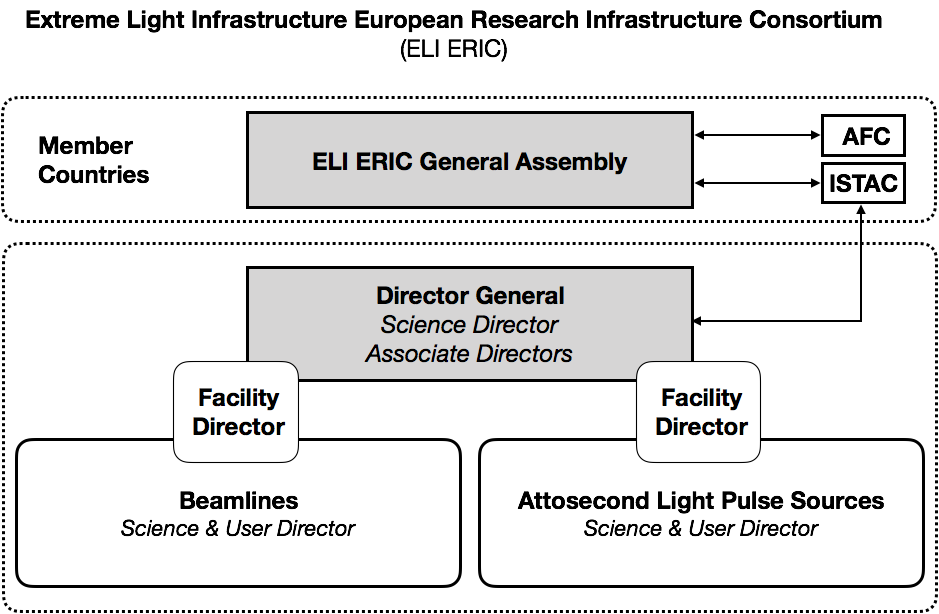
By the end of 2021, it is anticipated that ELI ERIC will directly operate the ELI Facilities. The ELI Technical and Scientific Description is an overview of how technical systems for each of the ELI Facilities come online for users. The first years of operation aim to achieve early scientific success to assure the research community of the quality of the new research infrastructure and to attract other users.

The shared responsibilities and obligations to operate the ELI Facilities between the ELI ERIC and the Host Institutions, require clear identification of the activities and resources. The rest of this document aims to identify those differences, as well as indicate how the responsibility for activities and resources may change during the transitional period.

# Organisation

As charged in the ELI ERIC Statutes, ELI shall operate ‘…as a single organisation comprising the ELI Facilities…” The ELI ERIC Director General is, ‘…responsible for the day-to-day management of ELI with due diligence and in accordance with these Statutes, the instructions and resolutions of the GA, and applicable legal requirements.’ This means the institutional framework of ELI ERIC ensures a coordinated and consistent operational management *across* the ELI Facilities (horizontally operations) while ensuring the best possible scientific offer to the users by optimising the processes, resources and technical capabilities at each ELI Facility (vertical operations).

# Organisational Model

The governance and management structure of ELI ERIC aims to ensure an integrated operational capability, as required by the ELI ERIC Statutes. The Figure 1 below shows the bodies and committees – General Assembly (‘GA’), Director General, ISTAC, Administrative and Finance Committee ( ‘AFC’) - of ELI ERIC, and the operational management of ELI – and their relationship with the ELI Facilities.

***Figure 1 - ELI ERIC Integrated Operations Model with ELI Facilities***

The GA, along with the Director General, will set the key policies for which will be in effect for all the ELI Facilities, monitored by ELI ERIC, and supported by the Host Institutions. In practice those policies will be developed by the Director General together with the Facility Directors to ensure relevant input and agreement. The policies provide the basis of the ELI ERIC Management System, a definition of ‘how’ and to what standard the organisation(s) will operate.

Once policies are established, the operational management will play an important role in further elaborating the ELI ERIC Management System, a comprehensive framework to implement the policies defined by the GA and Director General. The aim is an ‘Integrated Organisation Model’, acting together under one governance and one management to guide all decision-making.

During the Initial Operations Period, the ELI Facilities and their Host Institutions will work according to Agreements on ELI Facility Operation, and begin to adopt the same ELI ERIC Management System. They will embed the same processes and rules into their organisational structures, and follow a common communication policy. Rules and procedures may be adapted to meet local conditions, but under common management.

Organisational integration will be achieved when the ELI ERIC Management System and structure has been fully adopted, and operational responsibilities are managed within a single legal entity. At that point, agreements on ELI Facility Operation will no longer be necessary.

# The ELI ERIC Management System

From the establishment of the ELI ERIC there will be a ‘Transition Period’ when the ELI ERIC will act as a central hub coordinating the operation of the ELI Facilities, while the Integrated Organisation Model is being introduced.

The approach is to develop an ISO 9001 compliant system, but without necessarily aiming at ISO certification. Used by other research infrastructures in Europe, this approach is well suited to ELI and to give a structure for setting up the organization – in particular given the transition phase during which integration of the ELI Facilities will be achieved – and for pushing for quality conformity in the future. It is a ‘process based’ system including four main levels of supporting documentation starting from general (strategic) to specific (operational), as shown below.



*Figure 2 – Overview of management system documentation layers*

The management system revolves around four layers:

* Policy – Strategic level: document decided at the General Assembly level and amended only very seldomly
* Process – Tactical level: document decided at the Director General and management level; it can be adapted/added by the Director General and management
* Procedure – Operative level: such documents can be changed/adapted at the organisational level
* Guidelines - Sub-operative level (best practices, etc.): guidelines are meant to adapt the Procedures to local realities.

Policies and processes will be instrumental in organizing the convergence of the ELI Facilities towards full integration in the context of the transition phase. They will ensure that procedures, rules and guidelines, defined and adopted in most cases locally, gradually align and facilitate the eventual legal transition to full integration.

The scope of this work is to prepare and implement the key policies foreseen in the ELI ERIC Statutes as well as implementing procedures. This will be done through strong collaboration among the management staff of the ELI Facilities and ELI-DC (ELI ERIC in the future). All policies will be submitted for approval to the ELI ERIC General Assembly.

Consultants with expertise in the ISO 9001 standard will be used to support the activity. The task is obviously dependent in its timing on the establishment of ELI ERIC as far as adoption and implementation of the policies and procedures are concerned. Preparatory work can nevertheless start as of the outset of the project even under ELI-DC building on work done in particular within the framework of the ELITRANS project. The

Design and implementation of legal transition from operating agreements-based operations to fully integrated operations (ELI) consists of the preparation and implementation of legal measures to “transition” the ELI Facilities from operations under operating agreements to direct operation by ELI ERIC.

This legal transition will have to be carefully planned to define the conditions and timing of the handing over of risks, liabilities, assets, and financial commitments to ELI ERIC. This will involve substantial due diligence where relevant and required, with the support of legal experts and consultants, in collaboration with the staff of ELI ERIC and of the ELI hosting institutions.

Management integration and transition to a single organization requires IT support systems for information sharing and management of resources and risks within ELI. This task will include two main dimensions:

* Aligning the strategies of the ELI Facilities in terms of IT “back-office” systems and networks to provide a truly unified environment to ELI staff and external users;
* Design and initial implementation of an Enterprise Resource Planning System for ELI.

The first dimension will build on the situation analysis already performed within the framework of a previous H2020 project (ELITRANS) and the recommendations provided by the IT managers of the ELI Facilities. It will focus in particular on standardization of solutions and equipment – in particular for internal communications and information-sharing. Actual implementation of the aligned strategies will be beyond the scope of this project given the costs.

The second dimension will be to define the detailed requirements of ELI’s integrated ERP system and implementation plan. The overall strategy should take into consideration in particular the existing legacy resource management systems currently in use at the ELI Facilities, the impact of local legislations (in particular in the area of human resources) and the evolving needs during transition as reporting requirements and conditions will necessarily evolve.

Work will be carried out in two phases with a design phase leading to a strategy and investment plan submitted for approval to the governing bodies of ELI ERIC and an initial implementation and deployment phase focusing on the core components of the ERP system.

The overall transition phase will require substantial training to facilitate the adoption of the evolving management conditions and supporting systems of the integrated organization. An initial assessment of the training needs and of the timing of the training measures will be performed after which training will be delivered and reviewed periodically.

Training measures will necessarily take various forms and configurations (online, on site), involving consultants wherever required and the use of digital technologies. Some elements will be common to all ELI staff, while some customized elements will be considered to address the peculiarities of each Facility. An important component of the training measures will be the support to the development of a common corporate culture within the organization.

* 1. **Strategic Policy Areas**

The ELI ERIC GA governs through policies and rules put in place by the GA and/or the Director General. The ELI ERIC Management System will take policies from the ‘governance’ level and translate that into ‘operative’ level processes and procedures, consistent in key strategic areas. The section below describes nine (9) strategic areas with indicators for transitioning responsibility to the Integrated Organisation Model.

# Governance

From the beginning it is understood that the ELI ERIC GA, advised by the ISTAC and the AFC, makes all ELI ERIC policy decisions. The Director General, as the legal representative of ELI ERIC and the only executive body is responsible for the day-to-day management of ELI ERIC works with the Directors of the Facilities to coordinate operations. The financial responsibility stays with the ELI ERIC GA and its delegates, who directly represent the Members.

# Scientific Evaluation Policy

All decisions in regard to instrumentation, targeted user groups, and prioritisation for ‘User Access’ are approved by the GA, coordinated and executed by the Director General in close cooperation with the Facility Directors. The ‘Scientific Evaluation Policy’ is established in Article 7 of the ELI ERIC Statutes and detailed in chapter 2.1 of this Annex.

# User Access

The User Access Policy, a statutory policy, provides high-level guidance from the GA relative to User Access. According to the ELI ERIC Statutes, the Director General approves all access, including provisions for local researchers, after review by an appointed peer review panel. ‘User Access’ is granted as ELI Facilities become available. The ELI ERIC is charged with managing an integrated system for coordinating users, and implementing a common system for quality assurance of services provided to the Users.

# Budget

The ELI ERIC budget includes the full scope of ELI ERIC ‘User Access’ and ELI Facilities related costs. Capital investment shall not be part of the Operational Expenditure, but is subject to approval by ELI ERIC GA with respect to the ELI ERIC mission, and critical to sustain the scientific and technological excellence of the ELI Facilities over its lifetime. Members´ contributions are fully transparent and consistent with planned activities, cash or in-kind in line with the ELI ERIC Financial Rules.

# Employment Policy

Staff are ‘integrated’ to ELI ERIC when they fully available and employed or seconded according with the rules approved by ELI ERIC GA. An ELI ERIC Staff Policy will be applied across all the ELI Facilities as well as an ELI ERIC Code of Conduct.

# Technology Management

Technology management means the operation and maintenance of equipment, such as primary or secondary sources, and user instrumentation. It includes a responsibility to provide availability, as well as liability for operation. It also includes related software, support systems, and workshops. This includes the Technology Development Policy and Innovation Policy.

# Facility Site Management

Safety and environmental management, as well as maintenance, security, supervision and access to the ELI Facilities are subject to an ELI ERIC Safety and Environmental Policy.

# Legal and Liability

These aspects of operations are managed by ELI ERIC as an international organisation for the purpose of VAT exemption and recognised as a pan-European entity with a legal character in each Host and Member Countries. It takes into account, at the legal responsibilities and liabilities of the ELI Facilities. There may be several policies governing this area, including an ‘Intellectual Property Policy’, a ‘Data Protection Policy’, etc.

# Administrative

These are activities managed according to ELI ERIC policies and rules, include but are not limited to information and management accounting systems, procurement, logistics planning, ICT systems, human resources, and the management of resources and budgets relative to those activities. In particular, this includes the ‘Procurement Rules’ and an ‘ICT Policy’, including cyber-security measures.

# Timing of the Transition Period

The approach to integrate activities according to the ELI ERIC Integrated Organisation Model may be applied in a consistent way across each of the ELI Facilities, but each Host Country has an individual view on how fast, and to what extent its ELI Facility can be integrated into ELI ERIC. One size may not fit all and there may be legal and political conditions limiting the speed and level of integration.

***Table 1 - Transition from Distributed Integrated Operations by ELI Facilities***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **ELI ERIC Integrated Organisation Model** | **2019** | **2020** | **2021** | **2022** |
| Governance | *CZ/HU* | *CZ/HU* | *CZ/HU* | *CZ/HU* |
| Science Policy | *CZ/HU* | *CZ/HU* | *CZ/HU* | *CZ/HU* |
| User Access | *CZ/HU* | *CZ/HU* | *CZ/HU* | *CZ/HU* |
| Budget | *CZ/HU* | *CZ/HU* | *CZ/HU* | *CZ/HU* |
| Employment Policy | *-* | *CZ* | *CZ* | *CZ/HU* |
| Technology Management | *-* | *CZ* | *CZ* | *CZ/HU* |
| Facilities Management | *-* | *CZ* | *CZ* | *CZ/HU* |
| Legal & Liability | *-* | *CZ* | *CZ/HU* | *CZ/HU* |
| Administrative | *-* | *CZ* | *CZ/HU* | *CZ/HU* |

That means that certain activities may be integrated, while others remain governed by the Agreements on ELI Facility Operation for a period of time. Each section about the ELI Facilities describes also the stated intent of each Host Country in respect to the ELI facility located on its soil and the transition period. This is important because it is linked as well to the contribution level of each Host and the contribution levels of the non-Hosts, as discussed in Section 5.3.

# Estimated Costs of the ELI Facilities

To define the conditions needed to reach long-term sustainability, the costs and the possible financial sources need to be detailed. As provided for in the ELI ERIC Statutes, the general principles for the use of the ELI Facilities and the apportionment of Members’ contributions to the operating costs shall be documented in a stand-alone policy agreed by the GA, creating also the prerequisites to avoid a significant and lasting imbalance between the use and the contributions by the scientific community of each Member.

In what follows, the basic elements to define costs are presented and can be grouped into the following categories:

1. Construction – Capital investment expenditures (CAPEX) before operations;
2. Operations – Operational expenditures (OPEX) of peer reviewed access, including some capital investment Expenditures (CAPEX) to maintain specifications and capability as defined in the ELI OPEX Report;
3. Future upgrades – New investments (CAPEX) needed to improve specifications and available instruments in response to competition and users’ requirements;

The following text focuses on aspects of points 1 (Construction) and 2 (Operations).

# Construction

The total investment (construction costs) of the ELI Facilities will be of around €509,3 million over the construction period as detailed in Table 2.

|  |  |  |  |
| --- | --- | --- | --- |
| Item | ELI BL | ELI ALPS | ELI |
| Building + Land | € 94.643 | € 88.705 | €183.348 |
| Technology | € 181.876 | € 105.435 | €287.311 |
| Services | € 7.601 | € 9.788 | €17.389 |
| Personnel | € 41.206 | € 27.484 | €68.690 |
| Total | € 325.326 | € 231.412 | €556.738 |

***Table 2 – Construction Costs of the ELI Facilities***

These costs are completely covered by the Host Countries, through ESIF and national funding, based on the projects, which were approved and monitored by the national Managing Authorities. The investments have been of about 30% in buildings, 60% in technology and 10% in personnel and services. These costs are, from the position of ELI ERIC, non-recoverable and will not be factored into the operating costs of ELI ERIC.

# Operations

The commitment of the Host Members enables other non-Host Members to define a gradual approach to their future commitments and reach longer-term sustainability of the ELI ERIC based on Members´ contributions from 2019 onwards.



***Table 3 – Estimated ELI ERIC Operation Costs for the ELI Facilities***

The entry of non-Host Members during the founding phase allows for a gradual ramp-up of contributions over the start-up period and for a decision on the final level and commitments for their contribution soon after establishing the ELI ERIC. The early entry allows prospective Members to be involved in setting up the basic rules for the operation of the ELI Facilities, while ramping-up financial commitments at the beginning.

Above are the projected ELI Operating costs, adjusted for current milestones. They probably represent an upper estimate relative to User Access costs during the Initial Operations Period depending on whether or not milestones are achieved. Estimates for must be established and monitored on a yearly basis for the duration of the Initial Operations Period.

# Contributions

The link between milestones, both technical and organisational, and contributions to facilitate the transition, is critical. The Host Countries are incentivised to reach milestones and to integrate the ELI Facilities into ELI ERIC. It ensures that the non-Hosts are ramping-up contributions for funding access, activities and assets that they have direct control over through ELI ERIC governance and management bodies.

For each step an ELI Facility and its respective Host Country make towards a higher level of integration, there will be an increase in responsibility of the ELI ERIC to ‘operate’ the ELI Facility. Correspondingly, the level of responsibility to directly fund the ELI Facility by the respective Host Country will decrease, as will the level of funding.

The progress towards these milestones will be recognised by the non-Host Members and reflected in the level of contributions required from each Host Country as milestones are reached, and balanced by contributions from non-Host Countries. Target contribution levels are established between the Hosts and non-Hosts. Individual milestones will be weighted and timing will be determined and detailed in the Agreements on ELI Facility Operation designated in Article 3(1) of the ELI ERIC Statutes.

This transition of risk, responsibility, assets, and financial commitments, is the basis of a working model for the transition period. It secures technical and organisational commitments for the non-Host Members, while balancing that with reductions in financial commitments for the Host Members.

This step-wise and systematic approach is supported by the Agreements on ELI Facility Operation, which detail the transition for each facility. The ‘hand-over’ of responsibility is monitored on an on-going basis and is the basis for annual planning during the Initial Operations Phase. The achievement of each milestone will be subject to a review, documented, reviewed by the AFC and approved by the GA.

After the Initial Operations Period, the contributions shall be defined based on the principle of effective usage.

# Agreements on ELI Facility Operation

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At the establishment of ELI ERIC, the ELI Facilities will be ending the Implementation Phase, completing installation and going through a period of commissioning. The ELI Facilities are owned by local legal entities in the Host Countries. Those local entities may, in the case of being named the Host Member’s Representing Entity, have a formal legal connection to ELI ERIC. This is not however automatic, and may not be the case if there is not a political and legal basis in a Host Country.

Direct transfer of assets and ownership of the facilities, or parts of the ELI Facilities, to ELI ERIC will not be immediately possible at the beginning of Operations. For ELI ERIC to carry out its mandate and enable access for users to the facilities and ‘operate’, some formal arrangement will need to be established with the Host Countries, and/or the local institutions. This is especially true at the beginning of operations, during the transition period to the Steady State Operations, allowing for a transferral of responsibility for resources over a defined time period. No investment or construction costs will be paid for by Member Contributions; contributions are reserved for Initial Operations, Steady State Operations and Upgrades after 2022 only.

This arrangement is defined in Article 2(1) of the ELI ERIC Statutes where it says that the ELI Facilities are described in Annex 1, the Technical and Scientific Description. Article 19 of the Statutes establishes that ELI governs the ELI Facilities in a single integrated organisation with one governance and one management.

# Form of Agreements

Although the agreements involve different legal entities all of the Hosts and Host Institutions agree the form of agreement should be consistent and applied equally to all the ELI Facilities. In principle each agreement will consist of two parts:

* Main Agreement – Contains terms and conditions, establishing a relationship between ELI ERIC, the Facility Owner (institutional) and/or the respective Host Member; it contains the same terms and conditions for all ELI Facilities and forms a legal basis for the agreement.
* Technical Annex – Contains specific information for each ELI Facility, including definition of the exact technical scope, cost, and schedule/milestones for systems to formally enter into ‘Operations’, including technical requirements, principles for technical acceptance and quality control. Reflects the Technical and Scientific Description of the ELI Facilities. The Technical Annex may be updated in conjunction to annual plans.

# Content of Agreements

In order to balance the principle of common interest to fulfil the ELI ERIC mission to operate effectively and also to ensure a consistent approach over the ELI Facilities certain elements are essential to be embedded in the Agreements. These elements may be informed and guided by a well-defined management system, but a minimal level of explicit agreement on certain points is needed for an effective collaboration in any case.

1. A **clear statement** is required of ‘**Who’** are the parties involved in the arrangement, their respective **roles and responsibilities**. Individual **people** **should be named** as responsible representatives to the arrangement.
2. A **legal nature of the arrangement** shall be defined in order to correctly specify the scope and duties on one hand and balance and safeguard the interest to integrate without too restrictive legal and administrative hurdles. All parties shall exercise due diligence in securing their commitments.
3. A **Basic Definition of ‘What’ is being offered and how the ‘acceptance’ will be acknowledged.** This definition of the facilities, services and acceptance principles should be sufficiently defined to ensure predictability and smooth transition from the implementation into operation phase, including a basis for determining aspects related to funding, such as annual planning and budgeting.
4. **Define cash flows.** A statement on what basis and through which costs-contributions mechanism ELI ERIC will secure cash flows and what will be the balance between cash and in-kind. The agreed approach should be able to accommodate all possibilities and should be clearly accounted for and auditable.
5. **Implementation of ELI ERIC policies.** Be it General management system, Standard of Performance, Working conditions, Maintenance approach or Facility management and Safety Standards the Agreement shall specify implementation scheme for the ELI ERIC policies by the Host Institutions. Should be jointly determined by the ELI Facilities and ELI ERIC, but may need to be applied according to the commissioning stage of each ELI Facility.
6. **Communication and Representation.** Channels of communication and ‘agency’ or ‘acting on behalf’ of each other need to be defined relative to external parties, including scientific users, suppliers, authorities at all levels. A clear chain of communication should be defined and plans for crisis communications required.
7. **Liability and Responsibility at and for the Site.** Safety and liability at the sites and for certain actions/activities in cases where staff from different organisations work together. Guidelines, training, communication and responsible roles need to be defined.
8. **Duration.** The aim is to work to establish and operate an integrated organisation, and although that may not be possible from the beginning, time frames should be agreed according to milestones.
9. **A method to deal with issues that may arise.** The best plans and intentions can sometimes turn out differently. In this case where all the parties must work closely and strengthen collaborations, issues must be dealt with in a way that all parties feel a shared responsibility to confront issues and find solutions.
10. **Jurisdiction and Remedies.** Agreements to operate within the ELI ERIC are not commercial transactions, but more like scientific collaborations. The difference from a scientific collaboration however might be an increased level of accountability from both parties. No matter what the eventual contractual relationship is, the commitment to ‘make available’ the facilities comes from the Host Countries, who are members of the ELI ERIC GA. For that reason, in the event of disputes or non-compliance, the ELI ERIC GA is the logical body to govern disputes, unless another body is recognised by the GA.

# Important Definitions

The following are a list of important terms and concepts used frequently in the foundational documentation referencing ELI ERIC. That includes this document and also statutory documents like the ELI ERIC Statutes (which contains an abbreviated version of this list) and supporting Annexes. This list may not be complete or contain all relevant terms and definitions. It may be revised as new terms are introduced or terms become irrelevant or invalid.

For the purposes of ELI ERIC, the following definitions shall apply:

1. ACCESS FOR USERS means the legitimate and authorised physical, remote and use of ELI’s offered scientific facilities and services to individuals, teams and institutions from academia, industry and public services according to ELI’s User Access policy (ELI Statutes, Article 6).
2. ACCESSION means the act of joining ELI as a Member after entry into force of the European Commission Implementing Decision on setting up the ELI European Research Infrastructure Consortium.
3. ADMINISTRATIVE AND FINANCIAL COMMITTEE or AFC means the committee established under Article 24 of the ELI ERIC Statutes to advise the the ELI General Assembly on financial and administrative issues. The AFC delegates are nominated by the ELI ERIC Members and appointed by the GA according to Article 21(9).
4. DIRECTOR GENERAL is the primary executive body of ELI ERIC. The person occupying the position is chosen and approved by the ELI ERIC GA.
5. ELI FACILITY means the high-power laser facilities that is operated by ELI ERIC. A detailed technical description is provided in Annex 1.
6. ELI FACILITY DIRECTOR means a person with full legal power and responsibility for the respective ELI FACILITY. The authority may be assigned by the Host Country during the Initial Operations Period (below) and later by the DG, and approved by the GA.
7. FOUNDING MEMBER means a country participating in ELI before and at the establishment of ELI ERIC and contributing financially and having the right to vote in ELI business.
8. FOUNDING OBSERVER means a country participating in ELI before and at the establishment of ELI ERIC, supporting with scientific expertise, but not be assessed an Observer fee or contributing financially and having no right to vote. This status shall extend for three years after establishment, and before then a country shall choose to become a Member, an Observer or will not participate in ELI.
9. GENERAL ASSEMBLY (GA) The primary governing body of ELI ERIC. It is made of representatives of the ELI ERIC Members.
10. HOST MEMBER means a Member country where an ELI FACILITY is located and having specific obligations as outlined in Annex 2. .
11. INITIAL OPERATIONS PERIOD means the period covering the peer-reviewed completion of the scientific instrumentation, which is to be made available for access to users through ELI ERIC. Also a period conceived to integrate the respective ELI Facilities into ELI ERIC. This period is foreseen from 2019-2021.
12. IMPLEMENTATION PROJECTS means the executive projects funded by European Structural and Investment Funds (hereinafter referred to as “ESIF”) and national funds for the construction of the ELI FACILITIES.
13. INTERNATIONAL SCIENTIFIC AND TECHNICAL ADVISORY COMMITTEE or ISTAC means the scientific and technical advisory body to the ELI ERIC General Assembly according to Articles 21(9) and 23.
14. MEMBER is a country or intergovernmental organisation that has joined and contributes to ELI ERIC and is permitted to vote at the ELI ERIC General Assembly (GA).
15. OBSERVER is a country/nation or intergovernmental organisation that participates in ELI ERIC governance, but has no vote.
16. RULES OF PROCEDURE means the policy and procedure documents as approved by the ELI ERIC GA.
17. STEADY STATE OPERATIONS PERIOD means full operation of the ELI FACILITIES by ELI ERIC. It is foreseen to start in 2022, upon completion of the Initial Operations period and integration of each of the respective ELI Facilities to ELI ERIC.
18. TRANSITION PERIOD means the period when the ELI Facilities are transitioning under ELI ERIC governance into integrated operations. The period is defined with respect to each ELI Facilities by technical and organisational milestones defined in Annex 1, the ‘Technical and Scientific Description’ of the ELI Facilities.
19. USER means individuals, teams and institutions from academia, industry and public services that will access the ELI FACILITIES according to ELI’s User Access policy (Article 6).

1. https://ec.europa.eu/research/infrastructures/pdf/2016\_charterforaccessto-ris.pdf [↑](#footnote-ref-2)