eLTER Preparatory Phase Project

eLTER RI Ethical Guidelines and Draft Charter of the Ethical Advisory Board

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1. Preface

> "The consideration of ethical issues, starting at the conceptual stage of a proposal, enhances the quality of research, increases its likely social impact, promotes research integrity, promotes a better alignment of research with social needs and expectations and, finally, supports the societal uptake of the fruits of research because high ethical standards generally merit public trust."
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> --   Stingelin et al. 2012
>   *Roles and Functions of Ethics Advisors/Ethics*
>   *Advisory Boards in EC-funded Projects*

In this document, we present the ethical guidelines of The integrated European Long-Term Ecosystem, Critical Zone, and Socio-Ecological Systems Research Infrastructure (eLTER RI), alongside an explanation of the policies and the administrative structure to implement the guidelines. The guidelines apply to the entire RI and its members, and, accompanying the eLTER RI Strategic Plan (Nikolaidis et al. 2021), it will provide a framework for guiding the RI and all of its research, observation, and administrative activities.

eLTER RI aspires to be a leading European research infrastructure providing long-term observational data and the physical and human resources to facilitate research on grand societal environmental challenges (Nikolaidis et al. 2021). Our aspiration to achieve prominence and leadership in the European research landscape necessitate the adoption and implementation of high ethical standards of behaviour in governance, research, data collection, and day-to-day operations. We emphasise and internalise as axiomatic that societal sustainability transitions can only occur when institutions integrate explicit ethical standards (such as those enshrined in the United Nations Sustainable Development Goals and in the EU Charter of Fundamental Rights[1]) into their core operating procedures (Spangenberg 2002). In this document, we detail how eLTER RI will adopt clear ethical guidelines with an emphasis on **a) Participation and equity; b) Data collection, management, and dissemination; c) Research process and conduct; d) Organisational environmental behaviour, and e) Governance and decision-making structures.** This document expresses eLTER RI's explicit commitment in these realms, and outlines the operational steps that have been, and will be, taken within the RI to assure that all RI activities reflect these commitments. eLTER RI ethical commitments are tightly synergistic with our expressed goal of contributing to a broader European and global sustainability transition and we view the successful implementation of these ethical commitments as a necessary precursor towards meeting sustainability goals.

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[1] https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32021R0695&from=EN

2. Background: Ethical guidelines and institutional sustainability transitions

a. Building an RI to address sustainability goals

> "If we could change ourselves, the tendencies in the world would also change"
> --- Mahatma Gandhi
> *cited in Morton 2011*

With the acceptance of eLTER RI to the ESFRI roadmap in 2018 and subsequent award of Horizon 2020 grants to develop the RI (eLTER PPP and eLTER PLUS 2020), eLTER embarked on a process of institutional sustainability transformation. In order to maximise the potential of our research and observational activities to impact policy and behaviours, we must apply ethical guidelines to two unique, but interacting, components of the RI: (1) ethical integrity underlying world-class ecosystem research and observation, and (2) ethics as a drivers of the institutional culture of the RI. By applying ethical guidelines to both aspects of the RI, research/observation and institutional behaviour, we can maximise our impact as effective agents for positive (i.e., sustainability) change. While the first aspect of ethical behaviour (as applied to research and observational data collection) is fairly well defined (e.g., ALLEA 2017) and integrated into scientific conduct via universities and research institutions, the critical aspect of institutional ethical behaviour is a relatively new emphasis for eLTER and for institutions in general.

The need to undergo **organisational transformation** to facilitate society's sustainability agenda (e.g., the UN Sustainability Goals), is well grounded in the recent scientific research literature. Spangenberg (2002), citing the UN Commission on Sustainable Developments call for organisational transformations, elaborated on the addition of an "institutional dimension" to sustainability thinking alongside the traditional three sustainability dimensions of environment, economy, and society. **We believe that eLTER RI, as a responsible civil-society actor should demonstrate the character of the sustainable society for which it advocates, and we will do so through an explicit code of conduct, governance, behaviours and practices.**

Spangenberg links institutional sustainability to the other three dimensions of sustainability through advocacy of **justice** (linking to the economic dimension), **care** (linking to the environmental dimension) and **democracy** (linking to the social dimension). These themes, which are not part of a research and ecosystem observation program *per se*, underlie the ethical aspirations of eLTER, defining the *modus operandi* of the institution in its operations and influencing the process of research, data collection, and managerial activities. Spangenberg derives a set of institutional sustainability indicators from these themes, including measures that indicate degree of decentralisation and accountability, gender and economic equity, conflict management training, and more (Spangenberg 2002).

Design of the RI and its underlying values, goals, and world views (i.e., "deep leverage points", Abson et al. 2017) has great potential to affect societal change within the RI and beyond. Abson and colleagues (2017) suggest that while most [well-intentioned] scientists and policy makers focus on a particular resource and the policies that encourage sustainable management of that resource, this can have important applied value but it does not address the underlying core societal values that led to the unsustainable state of affairs in the first place. Addressing core values in the research process, the authors suggest, may have far greater and resonating impact on sustainability challenges, and so has greater potential for facilitating a transformative change in society. With the ethical commitments and actions

outlined in this document, eLTER RI will deepen its positive societal impact by investing in **institutional re-design**, on the one hand, and **adopting a broader, holistic (i.e., "whole systems") research approach**, on the other.

b. Stakeholder integration as a key component of ethical behaviour.

Among the recurring themes for catalysing sustainability transformations, greater integration of stakeholders in the process of knowledge production is among the most prominent. Deep and meaningful stakeholder integration necessitates an environment in which scholars, practitioners, and stakeholders work together to jointly define a research agenda, analyse data and results, and consider how best to integrate these results into public policy (Holzer et al. 2018a; Raymond et al. 2010; Reed, 2008). From a policy perspective, Reed (2008) summarises normative (value-driven) and practical (results-driven) reasons to encourage stakeholder integration. Regarding the former, stakeholder integration reflects eLTER RI's commitment to democratic governance and social accountability. Regarding the latter, eLTER RIs objectives to contribute to sustainability policy are best served through transparent and equitable collaborations with civil society stakeholders. Such a process of integration, for example, strengthens the potential of the RI to contribute to policy making by facilitating the direct uptake of knowledge into the realm of planning, policy, and management (Schäpke et al., 2018; Schneider et al. 2019).

eLTER has a two-decade history exploring mechanisms to increase its effectiveness in engaging the public and maximising its potential societal impact. This experience is embodied in its transdisciplinary, socio-ecological research program, where guidelines have been explored and enumerated in several publications (e.g., Haberl et al. 2006; Singh et al. 2010; Holzer et al. 2018b; Gaba and Bretagnolle 2020). These documents, and the guidelines for conducting SE research in eLTER, emphasise the following components:

- Inclusiveness - the inclusion of a diversity of stakeholders along with an interdisciplinary research team
- Reflexivity - the capacity of the research team to assess the impact of their work (including values and norms) in light of the sustainability topics under consideration, and revise and adapt research activities accordingly.
- Responsiveness - research and observational activities are directly relevant to societal sustainability needs
- Iterative work process - the activities are long-term, sensitive to experience and accumulated knowledge.

Stakeholder integration, along with these characteristics that maximise potential for successful integration, are central to eLTER RI's philosophy and operational structure.

c. Practical demands for an ethical framework

In addition to the underlying intellectual and value-oriented understanding of the need for ethical guidelines, eLTER is also bound to the practical requirements of the European Commission to publish and abide by such guidelines. The EU sets out clear ethical guidelines, including stakeholder integration, gender equality, transparency, and other issues (e.g., "Ethics - H2020 Online Manual"[2], which refers to the EU Charter of Fundamental Rights[3]). Further, the European Commission requires similar ethical commitments within its funding

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[2] https://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cutting-issues/ethics_en.htm
[3] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:12012P/TXT

frameworks (e.g., Horizon Europe) and through the European Research Infrastructure Consortium (ERIC).

In addition to the requirement of defining and adhering to explicit ethical guidelines, adherence to ethical principles is an important mechanism for maintaining public trust in scientific endeavours (Stingelin et al. 2012). Also, The European Commission views an explicit ethical framework as a "key oversight mechanism to ensure that EU funded research is not misused" (Stingelin et al. 2012:4). ERIC, while leaving specific governance and policy decisions to individual RIs, emphasizes the need for democratic governance which is **fair, equitable, non-discriminatory, and transparent** (European Commission 2015). We integrate these criteria into other explicit policies required for ERIC applicants in the fields of access, scientific evaluation, dissemination, intellectual property, employment (equal opportunity), procurement, and data.

The current document outlines the ethical foundations of eLTER RI and its guidelines for operationalizing our ethical commitments. Five areas are discussed: **a) Participation and equity; b) Data collection, management, and dissemination; c) Research process and conduct; d) Organisational environmental behaviour, and e) Governance and decision-making structures.** Ethical commitments and rules of conduct have already been outlined in numerous deliverables from the eLTER PPP project. The current document provides the underlying foundation of these documents, but refers the reader to those documents for further detail.

3. Participation and equity

The internal behaviours and practices of eLTER RI should reflect the same characteristics of the sustainable society for which it advocates. Central to this belief is the insistence that the eLTER RI community of researchers, practitioners, and stakeholders is free of discrimination, harassment and violence, and that the RI creates an inclusive and welcoming community.

In its Gender Equality Plan (GEP; Orenstein et al. 2021), eLTER makes clear its commitment to the European Commission's strategy on gender equality in research and innovation[4] and its three objectives, including:

- Fostering equality in scientific careers
- Ensuring gender balance in decision-making processes and bodies
- Integrating the gender dimension in research and innovation content

In that document, specific objectives for ensuring gender equality and the operational steps to reach these objectives in eLTER RI are outlined. The plan is publicly available at the eLTER RI website.[5]

Since the approval of the GEP by the eLTER RI Interim Council in June 2021, the RI has already taken steps to implement it. This has included: 1) a gender awareness workshop for senior administration and work package leaders in current eLTER Horizon 2020-funded projects (in December 2021), and a celebratory announcement in recognition of the International Day of Woman and Girls in Science and an online event celebrating International Women's Day (see Appendix B). Preparation of draft guidelines for the position of eLTER "Equality and Non-Discrimination Ombudspersons" and draft charter for the eLTER Ethical Advisory Board (EAB). Both drafts were submitted for approval of the Interim Council in

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[4]   https://research-and-innovation.ec.europa.eu/strategy/strategy-2020-2024/democracy-and-rights/gender-equality-research-and-innovation_en
[5]   https://www.elter-ri.eu/storage/app/uploads/public/62c/ea1/b6a/62cea1b6a4fde496144264.pdf

September 2022 (see appendix C and D). Both the ombudspersons and the EAB will be responsible for monitoring the implementation of the eLTER Gender Equality Plan. Finally, the emerging ethical guidelines, including commitment to equity in opportunity, have been presented in numerous eLTER forums, including a special plenum session dedicated to the subject at the 2022 annual meeting in Mallorca.

In this document, **we explicitly expand our commitment to equality in opportunity, as defined by the three EC objectives above, to include all the demographic categories included in the European Charter of Fundamental Rights**[6], as stated there: "**Any discrimination based on any ground such as sex, race, colour, ethnic or social origin, genetic features, language, religion or belief, political or any other opinion, membership of a national minority, property, birth, disability, age or sexual orientation shall be prohibited**."

We therefore reiterate our commitment to staff diversity and hereby extend the objectives and operational steps outlined in the GEP to include all the aforementioned forms of demographic diversity, and, as stated in the GEP, commit to Using this Gender Equality Plan as a springboard for increasing awareness of the unconscious gender bias, inspiring greater tolerance, inclusiveness, and respect for differences applying to all demographic diversity, and particularly towards greater inclusiveness and non-discrimination of trans- and non-binary gendered individuals. Further, **we extend policy measures regarding equity in opportunities and aspiration towards representativeness to all the aforementioned forms of demographic diversity**.

Finally, we commit, too, to creating a scientific community free of harassment and violence, as defined by the European Social Dialogue in its Framework Agreement on Harassment and Violence at Work."[7] eLTER will work to assure the privacy and dignity of its community and will address accusations and incidents with discretion and fairness to all parties, and when necessary, address harassment and violence should it occur within the community via the tools proposed in this document (Ethical Advisory Board and Gender and Discrimination Ombudspersons; see chapter 8 below, "Implementation" and associated appendices).

4. Research process and conduct

eLTER RI ethical guidelines governing its scientific activities focus on three realms: (a) research and data collection, (b) data accessibility, and (c) RI activity in the social and policy realms. The guidelines are integrated into previous publications from and preceding eLTER RI's entry into the ESFRI roadmap.

All EU funded research is expected to abide by stringent criteria as dictated by ethical principles, as well as applicable international, EU and national laws and institutional regulations (ALLEA 2017; European Commission 2019). The four principles guiding ethical behaviour in research as defined by "The European Code of Conduct for Research Integrity" include reliability, honesty, respect, and accountability (ALLEA 2017), and this concise document expands upon each of these principles in operational terms. Accordingly, eLTER uses this document as one of the foundations for its own ethical guidelines.

All research conducted within eLTER RI for which ethical approval is expected (e.g., ecological experimentation involving animals or sociological research on human subjects), must receive explicit approval from researchers' institutional ethical review boards. If researchers work

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[6] https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:12012P/TXT&from=EN

[7] https://docs.google.com/document/d/1mSCL09PpvRn86HuauHG8Ke5f94cZo5Cb/edit#

within an institution that does not have an ethical review board, the eLTER Head office will assist the researcher in connecting to a partner institution that can assist in this matter (e.g., UFZ, which hosts the eLTER RI Head office).

eLTER RI will provide its research community with guidance regarding research conduct in the diverse disciplinary and interdisciplinary fields practices within the RI, including ethics and biodiversity research (e.g., the The Tkarihwaié:ri code of ethical conduct[8], the International Society of Ethnobiology Code of Ethics[9]), and social science research on human subjects (e.g., the Declaration of Helsinki[10], the Global Code of Conduct for Research in Resource-Poor Settings[11], and the EC's Ethics in Social Science and Humanities[12]). For the duration of the current eLTER PPP and eLTER PLUS Horizon 2020 projects, and for any EU-funded projects that will follow, eLTER scientists will be referred to the European Commission's ethics checklist (and the relevant documents linked therein)[13], to help assure compliance.

In summary, eLTER RI and the research performed under its aegis will comply with the ethical standards established by the European Commission and by professional research organisations.

5. Data collection, management, and dissemination

eLTER RI's core mission includes the reliable and continuous collection of harmonised biophysical and socio-ecological data across Europe's ecosystems, and to assure broad, standardised, and efficient access to this data for all interested stakeholders (i.e., open data). While ensuring data accessibility (see commitment to FAIR guidelines below), we also commit to upholding the EU's "General Data Protection Regulation" (GDPR)[14] by ensuring protection of data providers and our own accountability. The GDPR specifies those principles that must be upheld regarding data, and, particularly relevant to eLTER RI, that (1) personal data will only stored if necessary and not beyond the duration of its stated use, and (2) data providers will be given adequate credit for their data contributions, while not violating their right to data privacy.

In conformance with the GDPR and FAIR principles, eLTER is committed to:

- **Openness** - data and services will be easily accessible to the maximum possible number of interested users, with no discrimination
- **Anonymity, transparency, and informed consent** - with regard to data providers and users, their identities will be protected, and personal information collected only with full consent of the individual; moreover, personal information will not be stored longer than necessary and how we (eLTER) use that information will be fully transparent.
- **Proprietary rights** - Data providers will be recognized for their work and contribution via citation of creators and/or DOI/PID references

These themes permeate throughout all eLTER documentation, and its implementation has already been demonstrated via the DEIMS-SDR site and the data-related documentation

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[8] https://www.cbd.int/traditional/code/ethicalconduct-brochure-en.pdf

[9] https://www.ethnobiology.net/what-we-do/core-programs/ise-ethics-program/code-of-ethics/code-in-english/

[10] https://www.wma.net/policies-post/wma-declaration-of-helsinki-ethical-principles-for-medical-research-involving-human-subjects/

[11] https://ec.europa.eu/research/participants/data/ref/h2020/other/hi/coc_research-resource-poor-settings_en.pdf

[12] https://ec.europa.eu/info/sites/default/files/6._h2020_ethics-soc-science-humanities_en.pdf

[13] https://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/ethics/h2020_hi_ethics-self-assess_en.pdf

[14] Rules for business and organisations. European Commission.
https://ec.europa.eu/info/law/law-topic/data-protection/reform/rules-business-and-organisations_en

emerging from eLTER PPP and eLTER PLUS. These latter documents form the backbone of eLTER RI's current and future operational standards.

DEIMS-SDR (Dynamic Ecological Information Management System - Site and dataset registry), as an example of eLTER RI data collection, handling and dissemination, functions as the central data repository and information management system for eLTER and international LTER sites and platforms. DEIMS has, since the beginnings of its operation, explicitly defined eLTER's Terms of Reference and Privacy Statements for both safeguarding personal data and accreditation, while seeking, "to support open access to information for the research community, [sharing] any information published on the website with the public free of charge." DEIMS information and data is licensed under a Creative Commons Attribution-NonCommercial 4.0 International Licence (CC BY-NC 4.0 International).[15] The spirit of commitment to open access data has already been embedded in eLTER functioning prior to its acceptance to the ESFRI roadmap.

Further information regarding user obligations and rights, accreditation and intellectual property rights and the legal framework for data use are spelled out in the DEIMS terms of service.[16] Information regarding obligations and rights of data providers are available in the DEIMS privacy statement.[17]

In eLTER PPP and PLUS, eLTER data teams continue to embed ethical commitments in the field of data, and are studying the relevant standards of conduct governing data collection and distribution. The results of these studies, and eLTER's integration of their standards are found in various eLTER PPP and PLUS deliverables, which are rich with language and references reiterating eLTER's commitment to the three principles noted above (**openness, anonymity and informed consent, and proprietary rights**). These include:

- *Input to Data Management Plans for RC Case Studies* (eLTER PLUS Deliverable 10.1, Peterseil et al. 2020): This document outlines the features of open data according to the Open Knowledge Foundation (2019), FORCE11, and the European Commission, including convenient and reasonably priced data, clear criteria for permissions regarding data re-use and redistribution, universal participation in data access, and easily accessible data repositories. The document also is explicit in stating that the construction of the eLTER Information System was guided by, and takes into account, these principles at every phase of data collection, processing, and storage, not only in eLTER PLUS, but in the eLTER RI in general.

  While the Data Management Plans specify adherence to the aforementioned ethical frameworks, the report also points out specific areas in which ethical considerations are still in discussion or which will need constant monitoring during operations, including the criteria for consent needed for data providers answering surveys regarding data availability (see section 3.3 of Peterseil et al. 2020) and the lack of anonymity in these processes, consent from data providers for publications based on their datasets, rules for authorships, citations, and attribution of data used in research and producing of data products.

- **Overarching Data Management Plan** (PLUS Deliverable D11.1; PPP Deliverable D7.3): The Overarching Data Management Plan "describes the overarching concepts of the data management components for the eLTER RI both in existence and being built. The report follows the EC H2020 DMP template to cover all aspects of the acquisition, description, curation and delivery of data following FAIR principles"

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[15] Creative Commons. https://creativecommons.org/licenses/by-nc/4.0/

[16] Terms of Use. eLTER. https://deims.org/terms

[17] Privacy. eLTER. https://deims.org/privacy

(Watkins et al. 2020). The plan specifies clear and transparent operating procedures to guarantee broad, unhindered access to data, alongside the preservation of data ownership rights and maintenance (when relevant) of privacy. Its ethical chapter specifies eLTER's intention to adhere to the requirements of EU regulation 2016/679 General Data Protection Regulation (GDPR).[18] The plan specifies procedures to assure anonymity, and when relevant, privacy of both research subjects and data users. The explicit embrace of FAIR principles (Findability, Accessibility, Interoperability, and Reusability; Wilkinson et al. 2016) reflects eLTER RI's commitment to assuring broad, uninhibited access to its data and its desire to maximise usage and re-usage for the benefit of RI stakeholders.

6. Organisational environmental behaviour
a. Introduction

Similarly to the principles underlying eLTER RI's commitment to equality and inclusiveness, as an environmental RI with the normative goals of addressing global environmental challenges, we are strongly committed to improving the environmental performance of eLTER RI in all aspects of its operations. To these ends, eLTER RI began the process in 2018 of assessing its environmental impacts, and analysing and implementing measures to reduce its impact. Here we outline the subject areas where decisions within eLTER RI can lead to improved environmental performance and list the steps that eLTER RI will take to do this.

Prominent among the areas in which eLTER RI aspires to improve its environmental performance is the reduction of greenhouse gas emissions. The Intergovernmental Panel on Climate Change (IPCC) has declared that "it is unequivocal that human influence has warmed the atmosphere, ocean, and land" via human-generated increases in greenhouse gas emissions into the atmosphere. The panel declared that humans have already caused global warming of 1º C and will likely cause a rise of between 1.5 to 2ºC this century (IPCC 2021). The IPCC further warned of profound and dangerous impacts on socio-ecological systems as a result of this warming. Inter-related challenges include nutrient accumulation (nitrogen and phosphorus) in water bodies and biodiversity loss. The former of which is leading to wide scale degradation of aquatic ecosystems (Rockstrom et al. 2009). Regarding biodiversity loss, there is increasing evidence regarding global decline in species across all taxa, suggesting a continuing human-driven mass extinction event.[19]

eLTER scientists are acutely aware of these threats, and developing our understanding of the drivers, mechanisms and impacts of these phenomena remain the core of the network's scientific mission, as expressed in eLTER's grand challenges.[20] Climate change, biodiversity conservation, nutrient cycling and natural resource management are explicit focal topics of

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[18] https://www.eumonitor.eu/9353000/1/j4nvk6yhcbpeywk_j9vvik7m1c3gyxp/vk3t7p3lbczq

[19] Regarding vertebrates: https://www.wwf.org.uk/updates/living-planet-report-2018 and http://www.pnas.org/content/early/2017/07/05/1704949114; Regarding insects: https://onlinelibrary.wiley.com/doi/full/10.1111/aab.12410, https://science.sciencemag.org/content/367/6478/685 (bumble bees) and https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0185809 (flying insects);

[20] https://www.sciencedirect.com/science/article/pii/

eLTER activities, particularly since its acceptance onto the ESFRI roadmap and the initiation of its current eLTER PLUS Horizon 2020-funded projects (eLTER PPP and eLTER PLUS).[21]

Despite these concerns, similar to many environmental infrastructures and organisations, our own RI activities (conferences, workshops) produce large ecological and carbon footprints. What has been lacking for eLTER RI, until the preparation of preliminary drafts of this report, were **environmental behavioural guidelines for conducting eLTER RI activities**. The goal of this subsection is to define such guidelines for eLTER-sponsored activities.

The guidelines include 1) monitoring all aspects of eLTER administration and operations with environmental impact, keeping statistics on environmental performance of eLTER activities, and using this information to improve performance of the network; 2) assessing and planning all RI and related project activities, including transportation and diet, according to UNFCCC instruction,[22] and; 3) adopting practices that facilitate meaningful reductions in the environmental impact of eLTER RI activities. Topics that are considered include conference/meeting accommodations, transportation, energy management (including data servers), paper use (recycled or FSC-certified), waste avoidance, sustainable purchasing, and water management. Guidelines will focus particularly on the primary drivers of climate change and biodiversity loss, particularly transportation, energy use, and food systems.

b. Environmental performance criteria
i. Transportation, online/hybrid meetings, and in-person meetings

Air travel is known to be the most significant contributor to our carbon footprint per km travelled, and scientific researchers are known to be prodigious international travellers (Caset et al. 2018; Jack and Glover 2021). **Reducing air travel** should be a priority within the scientific community in general, and with eLTER RI in particular. Although the scientific community, through the COVID-19 pandemic, received sudden, effective lesson in their capacity to continue scientific collaborations through electronic communications (Jack and Glover 2021), we still consider that travelling for research, scientific exchanges and conferences are central to our profession and necessary for creating effective and productive working relations within our eLTER community and beyond.

In March 2020, from the beginning of the COVID-19 pandemic, and throughout the next two years, eLTER RI researchers indeed exhibited proficiency and adaptability in carrying out their responsibilities in their two major H2020 projects professionally and in a timely, collaborative matter, despite that the projects had only officially launched one month prior to the pandemic shutdowns. In this spirit, the eLTER RI General Executive committee realised that it was possible to **reduce international organisational meetings**, and replace them with video and audio conferences. These options - virtual and hybrid meetings - will be considered as an alternative to in-person meetings whenever possible. Options for distance academic conferencing will also be explored (e.g. Twitter conferencing, synchronous and asynchronous online conferencing, and other digital tools; Caset et al. 2018; Jack and Glover 2021). In lieu of excessive air travel, the eLTER central office will invest in a state-of-the-art **video conferencing facility and personal equipment** to facilitate administrative meetings, conference talks, research activities, etc., or will utilise the facilities available at the eLTER hosting facility (UFZ).

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[21] An interim version of this section, concluded in December 2019, was annexed to the Consortium Agreements of the eLTER PPP and eLTER PLUS projects. See eLTER RI vision and mission: https://elter-ri.eu/mission-vision and a brief description of the eLTER PLUS project: https://elter-ri.eu/elter-plus

[22] https://unfccc.int/climate-action/climate-neutral-now; eLTER RI will investigate the possibility of joining this international effort.

For in-person meetings, options will be explored to reduce the number of kilometres travelled by combining meetings d, i.e. back-to-back meetings with overlapping groups of participants. eLTER PPP will investigate the possibility of developing an online calculator for calculating and suggesting an **international meeting point that minimises the aggregate air travel** necessary for bringing the research team together. The calculator will use as its input the point of origin of each participant, with which it will calculate, according to flight and airport accessibility, the meeting place that minimises aggregate air travel and allows for overland travel access. This calculator will also take into account the number of stopovers, as 50% of the carbon emissions come from take-off and landing[23], and also the contribution of overland transport (e.g., buses, trains). An additional variable for use in the calculator will be the energy production source of the target city, and its environmental profile. Such a tool can be used by the network for meetings and international conferences, and by the public, and ideally can lead to competition between cities to improve their environmental performance, and thus become more attractive for environmental-sensitive international meetings.

Conference and meeting sites with direct flight access and those that have easy overland travel access will thus be preferred over more difficult locations to access. Further consideration will be given to the host city's environmental performance (e.g., energy supplies, potential to host a meeting with environmentally sustainable options). *However, we also note that consideration must also be made for equity in representation. While it would be efficient, with a focus on environmental considerations, to select particular cities for meetings, this consideration cannot lead to the dominance of a single set of venues at the expense of opportunities of a diversity of RI countries and cities to host meetings.*

Once locations are selected for meetings, consideration will also be given to specific locations. Ideally, these locations will be easily **accessible by public transportation** – ideally in urban centres, in close proximity to airports, or with efficient rail connection. If this is not possible, the host should arrange for taxi sharing by the participants (this has already been implemented at several eLTER meetings).

The eLTER central office will also implement a system of **carbon-offsetting** that will allow RI researchers the option of offsetting flights in the form of financial contributions to certified carbon mitigation projects.[24] An additional source for assessing carbon footprint is UFZ's green meeting opportunity or an equivalent calculator developed by the University of Helsinki.[25] The eLTER RI general executive will investigate these tools and report on their potential applicability to eLTER RI activities.

ii.   Lodging

Selection of lodging for eLTER meetings also can have significant implications for environmental impact. During an online eLTER site and platform managers forum in May 2022, participants unanimously rejected the option of a conference hotel as the ideal venue for a meeting. In lieu of this, most participants voted for hosting events at research stations or university campuses (with a smaller number supporting campgrounds), although it is uncertain whether environmental considerations played a role in this decision. However, the selection indicates that participants were willing to opt for less luxurious accommodations usually associated with more intense resource use. We can then advocate considering lodging arrangements that are focused away from hotels and towards lower impact accommodations.

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[23] https://gogreentravelgreen.com/why-nonstop-direct-flights-better-for-environment-than-layover-stopover-flights/

[24] e.g., https://compensate.com/ , https://offset.climateneutralnow.org/

[25] https://blogs.helsinki.fi/hiilifiksu/laskuri/

On the other hand, such venues likely require a greater amount of overland travel, as they are likely located outside of urban areas and less accessible by mass transit.

With any venue, the eLTER RI staff will work with the host to assure maximum effort to minimise environmental impact, such as water and energy use and to clarify the hosting venue's sustainability policies (if any). Such a dialogue with venue hosts will also have a reverberating effect on the awareness of the business community to pay attention to sustainability in their business practices.
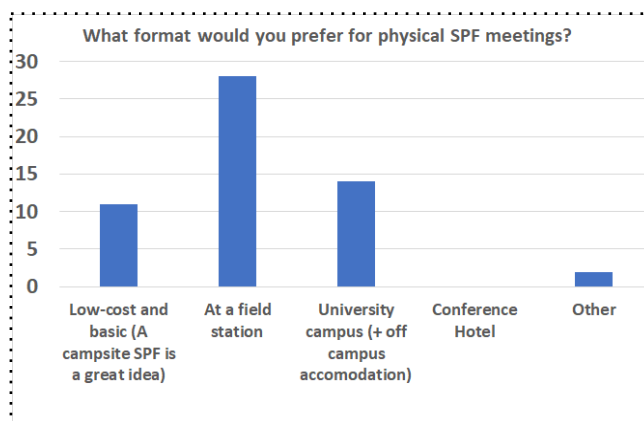
iii.   Food

A second major contributor to a meeting's carbon footprint is diet, and in particular, a meat-based diet (Garnett 2009). Among various meats, beef has the most profound carbon footprint (and a diversity of other environmental impacts, depending on the mode of production), followed by pork, poultry and fish. eLTER RI will emphasise a **vegetarian menu** throughout its activities (e.g. vegetarian will be the default selection, and those who would prefer meat will designate this). Meetings will provide **local produce (whenever possible) and tap-water** instead of bottled water (Parag and Timmons Roberts 2009).

iv.   Administration, improving performance, and material acquisitions

The eLTER PPP coordinating committee (later, as an ERIC, the General Executive Committee) team will monitor all environmental aspects of eLTER administration and operations. A coordination team member will be responsible for keeping **statistics on environmental performance** of eLTER activities, and strive to improve performance. The committee will compile resources to stimulate discussion, assist network members to partake in voluntary improvements, and will provide a report to the EAB as part of its biannual ethical performance report (see Charter of the Ethical Advisory Board, Appendix C).

When organisation meetings and if in-person meetings are decided upon, after addressing transportation, venue, and diet, other environmental activities will be assessed and behavioural improvements will be suggested. Topics will include **energy management, paper use (recycled or FSC-certified), waste (and particularly plastic[26]) avoidance, sustainable purchasing and water management**.[27]

As part of its explicit commitment to increase **collaborations with the private sector**, eLTER will explore opportunities to collaborate with private sector stakeholders to improve environmental performance within and beyond network activities - particularly with regard to purchasing/acquisitions, but also in planning for meetings.

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[26] Plastic pollution: https://www.youtube.com/watch?v=RS7IzU2VJIQ

[27]   Sustainable conference guidelines.The UNFCCC secretariat (UN Climate Change) see https://unfccc.int/process-and-meetings/conferences/un-climate-change-conference-november-2017/about/sustainable-conference

eLTER can also assess its environmental impact through the data surveys it uses. We will estimate the carbon impact of operating **data servers** in particular countries where they are housed[28] and will consider (1) the potential to lower carbon impact through selection of host country of data servers, and (2) convey to data storage centres our criteria for minimising carbon impact.

Finally, eLTER will consider **collaborating with independent consultants or organisations** to assess, improve and encourage sustainable practices throughout infrastructure activities (e.g. International Network of Next-Generation Ecologists, the UNFCCC, etc.).

v.   Environmental performance at UFZ - Home of the eLTER Head office

The UFZ, which currently hosts the eLTER ESFRI process coordination and the preparatory phase Head Office, operates in accordance with environmental management EC Regulation No. 1221/2009. EN ISO 14.001:2009 Section 4 is applied for the continuous improvement of environmental performance. The UFZ regularly publishes an environmental statement and has the environmental management system and statement verified by an accredited, independent environmental verifier. The UFZ is thus registered in the EMAS (Eco-Management and Audit Scheme) register and is therefore entitled to use the EMAS mark. The yearly published environmental performance statement can be downloaded via the UFZ webpage (in German).[29] eLTER will expand upon the precedent of UFZ environmental management (along with other environmental management systems) to encourage reciprocal behaviour (or better) in all eLTER affiliated institutions.

c. Progress on the environmental practices guidelines

eLTER RI has begun to internalise the environmental operating principles set out in this document even prior to its submission for approval. This has included expansion of the use of virtual and hybrid meetings (although the COVID-19 pandemic has obfuscated environmental decisions with those made due to health regulations and restrictions on travel), selection of meeting locations and venues, use of reusable materials and dishes, abstaining from the distribution of disposable materials (papers, single-use dishes), and selection of menus for meetings (e.g., vegetarian menus). For the 2022 annual PPP-PLUS meeting, participants were asked whether they purchased carbon offsets for their travels, although the response was mostly negative.

7. Governance and decision-making structures

In addition to the already published GEP, additional eLTER RI documents (published and in preparation) reflect the internalisation of the RI ethical commitments into the primary documents guiding the development and operation of the RI. These include the eLTER RI Strategic Plan, the Integrated Governance Plan, and the Stakeholder Mapping.

a. Strategic plan

The goal of a strategic plan is to succinctly clarify its organisational *raison d'etat*, its goals and objectives, and the paths through which the organisation intends to reach those goals. As the organisation evolves, a strategic plan serves as a reference point for where the organisation

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[28] In 2005, data servers were estimated to account for 1% of all electricity demand globally (Koomey 2008)

[29] Umwelterklärungen des UFZ. https://www.ufz.de/index.php?de=36831

would like to go and what it intends to achieve. eLTER's strategic plan (see https://elter-ri.eu/), adopted in 2021, sets out its institutional vision to use ecosystem science and research in the service of environmental sustainability. "Environmental sustainability can only be achieved on the basis of the robust knowledge and empirical evidence needed to identify and mitigate human impacts on ecosystems. eLTER catalyses scientific discovery and insights through its state-of-the-art research infrastructure, collaborative working culture, and TD expertise. This enables the development and application of evidence-based solutions for the wellbeing of current and future generations" (Nikolaidis et al. 2021). In other words, eLTER's vision expresses its commitment to construct a research infrastructure that will contribute to sustainability not only through data and research products, but also via institutional operating procedures (i.e., its values, ethics, and behaviours).

Key components of the Strategic Plan reflecting eLTER's ethical commitments include:
- Commitment to harnessing eLTER's human and physical resources towards addressing societal sustainability challenges as defined by the European Green Deal and the UN Sustainability Goals.
- Providing research products, data, and services to a broad variety of stakeholders, while ensuring transparency, quality, and accessibility. Service provision will be constantly analysed, assessed, and improved.
- Facilitating a working culture of collaboration, integration, and inclusiveness. In particular, the plan states, "eLTER will assist in developing creative, scientific, and interpersonal skills among its researchers, while simultaneously championing equity, openness, and transparency in all of its administrative, research, and educational activities. Realizing that diversity provides a foundation for scientific excellence, eLTER will enact administrative polities and educational tools to promote diversity and inclusiveness, while directly challenging and working to overcome existing systemic barriers, biases and discrimination in the scientific community" (Nikolaidis et al. 2021).

b. Integrated Governance Plan and Stakeholder Mapping

The draft eLTER Integrated Governance Plan is a working example of how eLTER is envisioning the implementation of the ethical commitments in the realm of governance. The plan reflects eLTER's efforts to assure that all stakeholders and actors are taken into account in eLTER decision making and that they all have a voice. As reviewed by the Interim Council in January 2022 and reflected in the strategic goals of eLTER,

"eLTER is determined to exploit both its drive to create a formal, centralized research infrastructure, and the positive qualities of its bottom-up, democratic history in its development of a participatory "Integrated Governance". Such governance balances the necessity of a tightly coordinated and harmonized research infrastructure component with the overarching desire to maintain a participatory and inclusive community in which all eLTER stakeholders have a voice and potential for navigating the future RI.

With respect to a governance structure, the current challenge is to develop the roles and mandates of three major pillars of the European LTER: the LTER community, the large pool of LTER sites in the LTER networks and the formalized eLTER research infrastructure."

--- IC_03 - Background document E: The strategic goals of

the eLTER Integrated Governance

The comprehensive eLTER stakeholder mapping (Barov et al. 2019), which identified all of the actual and potential stakeholder communities both within and outside of the RI, coupled with the emerging governance plan, which aspires to give all stakeholders a role in governance processes (Mirtl *unpublished*) exemplifies how eLTER is both identifying stakeholders and assuring their voice will be heard.

8. Implementation (Concrete actions)

a. Code of conduct

Taken together, the documents noted above, along with the current document, form the core of an eLTER code of conduct in each of the four areas of interest: **Governance and decision-making structures**; **Participation and equal opportunity**; **Data collection, management, and distribution and research process and conduct,** and; **Organisational environmental behaviour**). The Strategic Plan provides the explicit expectations of eLTER participants with regard to ethical conduct in these areas, and additional documents in turn provide detailed criteria and steps to ensure the implementation of our ethical commitment (e.g., the GEP, Integrated Governance Plan, Stakeholder mapping, and documents explaining handling and distribution of data). In addition to the GEP, eLTER's disposition towards broad participatory research is encapsulated in its transdisciplinary, socio-ecological research approach that has been under development for the past two decades. The current document provides an additional, previously undiscussed ethical dimension, the expectations regarding environmental behaviour and conduct.

b. Annual reporting

In association with the socio-economic (SE) impact reporting framework, the Key Performance Indicator (KPI) reporting, and the GEP reporting framework for gender representation, specific additional indicators and a descriptive narrative are being prepared and will be assessed with regard to the ethical commitments of eLTER RI every two years and submitted to the EAB. These indicators will include a demographic profile of eLTER staff and representatives, and number and types of activities implemented to encourage diversity and gender mainstreaming. The eLTER PPP consortium, later followed by the eLTER ERIC General Executive Committee, will be responsible for preparing an biannual narrative report to accompany the SE impact assessment that describes implementation of ethical guidelines during the previous year in each of the four categories described in this report. In addition, KPIs, which will be monitored annually, will reflect a diversity of ethical commitments, including the monitoring of environmental performance and the operationalization of promotion of diversity and inclusiveness.

c. Establishment of the Ethical Advisory Board

An Ethical Advisory Board (EAB) will be established, as suggested in the ERIC guidelines for interested parties; European Commission, 2015). There will be five members composed of two representatives of eLTER RI (later ERIC) appointed by the EC, and three members selected by the EC from outside of the RI, preferably with one or more having an expertise in ethics in science, as recommended by the EC (Stingelin et al. 2012). The EAB will be responsible for reviewing the biannual report and assessing whether the RI is upholding its ethical commitments. The EAB will then issue a short report to the eLTER Interim Council (later General Assembly), approving the ethical performance of the RI and/or pointing out

areas in which ethical performance must be improved. The specific tasks and responsibilities of the EAB will be drawn up in a Memorandum of Understanding, informed by the relevant EC documents (e.g., Stingelin et al. 2012) and presented for approval by the Interim Council (complete details in Appendix C).

d. Milestones

i.   Submission of the Charter for the eLTER Ethical Review Board for approval from the Interim Council - October 2022
ii. Submission of the guidelines for appointment of Ombudspersons for equity and anti-discrimination (see Appendix D) for approval from the Interim Council - October 2022
iii. Appointment of Gender Equality Ombudpersons - November 2022
iv. Appointment of the Ethical Review Board - February 2023
v.   Submission of Ethical Guidelines for approval of the Interim Council - September 2022.
vi. First annual report of ethical conduct submitted to EAB - February, 2024

e. Action items (August 2022)

i.   Publish ethical commitments document (1 page) on the eLTER website.
ii. Meet with each core research challenge team from eLTER PLUS and review guidelines for ethics in scientific research, including demands for submitting for ethics approval, when necessary.
iii. Establish a relationship with the ethical review board of UFZ, to be available to review proposals for scientists unaffiliated with institutions that have review boards.
iv. Investigate the possibility of joining the United Nations Framework Convention on Climate Change (UNFCCC) program "climate neutral now" - a voluntary program for organisations to commit to measuring and reducing their greenhouse gas emissions. Alternatively, explore other existing systematic environmental performance frameworks for adoption and reporting.

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10. Appendices

a. Appendix 1: From the eLTER RI PPP proposal:

Task 1.5 Ethics, incl. improving gender balance

Lead: IIT; Participants: BGU, CNR, CNRS, CSIC, UFZ

Task 1.5 will establish ethical guidelines and rules of conduct for the RI (D1.6). This includes three primary foci: diversity of RI staff, research ethical guidelines, and environmental performance. The WP will assess and develop criteria for the maintenance of diversity in representation within the network, including gender balance.

It will also adopt research and performance standards based on EU ethical guidelines for research and develop a mechanism to assure compliance within the RI. The Task will establish a Gender Equality Plan for eLTER RI (D1.7) containing concrete measures for improving the gender balance in eLTER RI. In recognition of our own role as drivers of environmental challenges, WP1 will also introduce standards for environmental behaviour. In this ethical performance we will also include private-sector relationships. This Task will set the basis for the Ethical Advisory Board in close collaboration with the governance WP2 and the shareholders.

b. Appendix 2: Outreach activities of eLTER - 2020-2022

1. Statement on COVID-19 pandemic -- https://elter-ri.eu/news/role-environmental-ris-context-current-covid-19-crisis-position-elter

2. Statement of hostilities in Ukraine - https://elter-ri.eu/statement-violence-ukraine

3. Announcement for International Day of Women and Girls in Science sent to all eLTER PPP and PLUS participants and posted to eLTER RI social media channels.

4. Advertisement for event on International Women's Day sent to all eLTER PPP and PLUS participants and advertised publicly on eLTER RI social media channels.

c. Appendix 3: Draft Charter of the Ethical Advisory Board

7 August 2022

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Introduction and Ethical Framework:

eLTER RI, since its acceptance onto the ESFRI roadmap, has been carefully constructing the ethical framework which will govern its operations into the future. This vision around which this framework is built is expressed in the eLTER RI strategic plan. As the strategic plan makes clear, "Environmental sustainability can only be achieved on the basis of the robust knowledge and empirical evidence needed to identify and mitigate human impacts on ecosystems. eLTER catalyzes scientific discovery and insights through its state-of-the-art research infrastructure, **collaborative working culture, and TD [transdisciplinary] expertise**. This enables the development and application of evidence-based **solutions for the wellbeing of current and future generations**" (Nikolaidas et al. 2021). eLTER's vision makes explicit its commitment to construct a research infrastructure that will contribute to sustainability not only through data and research products, but also via institutional operating procedures (i.e., its values, ethics, and behaviors).

eLTER is also bound to the ethical requirements of the European Commission. The EU has clear ethical guidelines, including stakeholder integration, gender equality, transparency, and other issues (e.g., article 19, "ethics" of Regulation (EU) 2021/695 of the European Parliament and the Council of 28 April 2021[30], and Ethics - H2020 Online Manual"[31], which refers to the EU Charter of Fundamental Rights[32]), and it requires similar ethical commitments within its funding frameworks and through the conditions for accepting a new candidate research infrastructure as an European Research Infrastructure Consortium (ERIC). Beyond the expression of certain democratic values, adherence to ethical guidelines is also considered an important tool for maintaining public trust in scientific endeavors (Stingelin et al. 2012). Further, the EC views ethics as a "key oversight mechanism to ensure that EU funded research is not misused" (Stingelin et al. 2012:4). ERIC criteria, while leaving specific governance and policy decisions to individual RIs, emphasize the need for democratic governance which is **fair, equitable, non-discriminatory, and transparent** (European Commission, 2015).

Numerous other eLTER documents, including and beyond its strategic plan, relay the importance of a strong ethical foundation in all eLTER RI activities. These include, most obviously, its Ethical Guidelines (Orenstein *unpublished*) and its Gender Equality Plan (Orenstein et al. 2021). The former document summarizes eLTER's ethical commitments in five areas, including (1) Collaborative Governance and democratic, transparent decision-making structures; (2) Stakeholder participation and equity in opportunities; (3) Accessibility with regard to data collection, management, and distribution; (4) Ethical rules regarding research process and conduct, and (5) Organizational environmental behavior. While the Ethical Guidelines document provides an overview of eLTER's commitment to implement ethics in all of these subject areas, additional documents address the subjects in more depth,

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[30] Regulation 2021/695 establishes Horizon Europe – the Framework Programme for Research and Innovation, and lays down its rules for participation and dissemination; see: https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32021R0695&from=EN

[31] https://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cutting-issues/ethics_en.htm

[32] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:12012P/TXT

including, for example, collaborative governance (Mirtl *unpublished*), stakeholder integration (Barov et al. 2021), and data access (Peterseil et al. 2020; Watkins et al. 2020).

In this document, we set out the structure and responsibilities of the eLTER RI Ethical Advisory Board (EAB) which, in general, will be responsible for overseeing the ethical performance of the eLTER RI and will provide an address for eLTER stakeholders to consult and receive advice on issues relating to ethical guidelines and behaviors.

The structure of the Ethical Advisory Board:

The EAB shall be composed of five scientists or experts appointed, not as representatives of their respective background organizations, but in their own right. Three members will be selected from outside of eLTER RI, and two will be internal members selected from among the eLTER national networks.

The initial list of candidates for the first EAB will be prepared by the eLTER PPP steering committee and submitted to the Interim Council for approval and formal appointment (once eLTER ERIC is established, candidates will be proposed and approved by the General Assembly). The initial appointment of an EAB member will be for a period of two years, after which three of the members will be rotated and the remaining two members will continue for an additional two years. After the initial rotation, appointments will be for a four year period, with two or three of the members rotating every two years (Fig. 1). Every two years, the EAB members will choose a chairperson from among the external members of the committee, who will serve as the central contact person between the EAB and eLTER RI administration.

Fig 1. The composition of eLTER RI's Ethical Advisory Boards for the coming decade (2023-2032).

Candidates shall be selected on the basis of four criteria:
1. Professional experience (e.g., academia, government administration, non-governmental organization) in research, environmental monitoring, or a related subject area relevant to eLTER RI.
2. Geographic diversity (i.e., representatives from different European countries).
3. Demographic diversity. The CC (and later the ERIC General Assembly) will strive to find suitable candidates of diverse ages, ethnic background, and gender such that diversity will be reflected in the composition of the board.

4. Relevant experience in promoting ethical issues in science (e.g., via research, experience in university or government committees, work in an NGO that promotes ethical behaviors.

Responsibilities of the Ethical Advisory Board:

The EAB shall:

1. **Provide consultation** on an ad hoc basis regarding ethical questions posed by eLTER RI (later eLTER ERIC) staff and researchers. Such questions may focus on any of the five ethical subject areas defined in the eLTER Ethical Guidelines: (1) governance and decision-making; (2) Stakeholder integration and equity issues; (3) data issues; (4) research processes and conduct, and (5) environmental behaviors of the RI. `
2. **Provide an address** for eLTER staff, researchers, and stakeholders regarding ethical concerns raised by eLTER staff and researchers. *Note that this includes all issues with the exception of equity and discrimination complaints, for which there are dedicated ombudspersons within the eLTER administration. The ombudspersons will work in collaboration with the Ethical Advisory Board* (see Orenstein, Bäck and Lichtenstein. 2022 for details).
3. **Conduct a biannual review** of eLTER RI ethical standards and its operations regarding implementation of eLTER ethical guidelines. The EAB will receive a report from the eLTER PPP steering committee (to be replaced with the eLTER administrative body upon becoming an ERIC) and will critically review the report, making further queries if necessary. The EAB will receive a report from the Equality and Non-Discrimination Ombudspersons, and integrate this report into their own, as well. The EAB will then report its review and findings in a designated meeting of the Interim Council (later by the eLTER ERIC General Assembly).

The first EAB will establish a "Rules of Procedure" document and present this document to the Interim Council for approval.

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d. Appendix 4: Establishment of the eLTER Equality And Non-Discrimination Ombudspersons Positions: Implementation Plan

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Preface

As expressed in its Strategic Plan, "eLTER RI aspires to exemplary global citizenship with high ethical and environmental standards reflected in its collaborative and inclusive working culture within the RI and between the RI and stakeholder communities" (Nikolaidis et al. 2021). We concur and commit to abide by the ethical commitments set out by the European Commission – embodied in the European Union Charter of Fundamental Rights and the Horizon Europe funding framework (Council Regulation (EU) No 1261/2013, article 19). As such, eLTER RI is committed to high ethical standards expressed in all of its scientific, administrative, and community activities.

Explicit and implementable criteria for ethical operations are included in eLTER's Strategic Plan (Nikolaidis et al. 2021), Gender Equality Plan (Orenstein et al. 2021) and its Ethical Guidelines (Orenstein et al. *in preparation*). Among these criteria is a commitment to equality and inclusiveness towards participating eLTER scientists, students, and administrators. In particular, as stated in its Gender Equality Plan, "Using this Gender Equality Plan as a springboard for increasing awareness of the unconscious gender bias, inspiring greater tolerance, inclusiveness, and respect for differences applying to all demographic diversity, and particularly towards greater inclusiveness and non-discrimination of trans- and non-binary gendered individuals".

The eLTER RI Ethical Guidelines expands this definition beyond gender to align with the European Union Charter of Fundamental rights to forbid discrimination of any sort based on "sex, race, colour, ethnic or social origin, genetic features, language, religion or other belief, political opinion, membership of a national minority, property, birth, disability, age or sexual orientation." Further, also assured by the EU, eLTER RI supports equality between men and women and will assure respect for cultural, religious, and linguistic diversity within the RI and in interactions between the RI and its stakeholder communities.

The Terms of Reference of the eLTER RI Equality and Non-Discrimination Ombudsperson

In order to assure compliance with these commitments, eLTER will appoint two ombudspersons (of two different genders) as a contact point within the RI to whom concerns, complaints, and suggestions can be addressed with regard to (1) any perceived instances of discrimination, harassment, or violence occurring within the RI, or (2) initiatives and ideas to create and strengthen the inclusive committee to which we aspire. The responsibilities of the ombudspersons, as described in the Gender Action Plan, are "*to address issues of perceived discrimination within the eLTER RI and to monitor the implementation of the Gender Equality Plan. The ombudspersons will have responsibility to provide an annual report of reported incidences - if any - and an explanation regarding how they were resolved, along with reporting on gender representation within the RI, and all activities that were taken during the year to increase gender representation and address gender bias and discrimination.*" As noted, the

ombudspersons' field of concern will extend to all forms of discrimination noted in the Charter of Fundamental Rights.[33] Since the personnel will either be working in eLTER ERIC or in their own respective organizations, the ombudspersons will also need to form connections to human resources departments of the institutes where the individuals in question are employed.

The administrative framework for appointing and maintaining a position of ombudsperson will be as follows:

- The ombudsperson is a voluntary position fulfilled by members of the eLTER RI community.
- Candidates for the position will be proposed by the eLTER PPP steering committee (later by the eLTER ERIC executive team) for a two-year term by a simple majority of members. The candidates will be approved by the eLTER RI Interim Council and later, by the members of the eLTER ERIC General Assembly[34], also by a simple majority of votes. If either candidate or both are not approved, new candidates will be identified by the eLTER PPP steering committee (later by the eLTER ERIC Executive Board).
- Upon assuming the position, the ombudspersons will write an introductory letter to the eLTER RI community introducing themselves, providing contact information, and offering a short description of their position. The same information will be published on the eLTER RI web page alongside its ethical statements.

Tasks and mandate of the ombudspersons:

The responsibilities of the ombudpersons are threefold: (1) to monitor the implementation of the equality plan and proposing updates when needed; (2) to suggest activities and ideas related for promoting equality in eLTER events (meetings, training, etc), for which, if implemented, the ombudspersons are eligible to receive support from the PPP SC (later the Executive Board) in putting the ideas in action, and (3) to be the contact point for receiving and addressing complaints and queries regarding perceived discrimination. The ombudspersons will work in collaboration with the Ethical Advisory Board (EAB), consulting with the EAB when required, and reporting to the EAB on an annual basis.

With regard to the latter responsibility, receiving and addressing complaints, the protocol the protocol is modelled on the proposals for the practical implementation of the legal requirements of section 13 of the German General Act on Equal Treatment by the Anti-Discrimination Agency at the Federal Ministry of Justice of the Federal Republic of Germany.[35] This includes:

1. Receiving the complaint of discrimination or any other identity-based prejudicial or threatening behavior (necessitating the establishment of a mechanism for submitting complaints to the ombudspersons, with an option to retain anonymity).
2. Clarification of the facts of the complaint and decision as to whether discrimination has occured. This may require consultation with a professional agency, under strict

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[33] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:12012P/TXT

[34] Official title for this body has not yet been determined

[35] "Beschwerdestelle und Beschwerdeverfahren nach § 13 AGG", Stand: Juni 2010, authors: Doris Liebscher, Anne Kobes / "Complaints unit and complaint procedure pursuant to Section 13 of the General Equal Treatment Act" (2010, available only in German) https://www.antidiskriminierungsstelle.de/SharedDocs/downloads/EN/publikationen/factsheet_en_Beschwer destelle_Beschwerdeverfahren.html

measures of confidentiality, if the incident is exclusively within eLTER RI activities. It may require further consultation and cooperation with relevant institutional representatives if this incident occurred in a defined institutional setting (e.g., research station or university).

3. If discrimination is determined to have occured, deciding on a course of action to remedy the situation (in collaboration with employer).
4. Communication of results and course of action to the complainant.
5. Implementation of course of action in collaboration with the employer (i.e., the administrators responsible for such complaints in the place of employment of the offender)..

Full confidentiality and impartiality must be maintained by the ombudspersons. They will prepare a report on the incident (again, assuring anonymity and confidentiality) and present it to the PPP steering committee (later, the ERIC Executive Board). The ombudspersons will prepare an annual report on the implementation of the GEP and Ethical Guidelines, including any complaints and how the complaints were addressed. They will present this report to the eLTER Ethical Advisory Board and annually at a meeting of the eLTER RI Interim Council and later the eLTER ERIC General Assembly.