

## **LF Energy New Proposals Process:**

<https://wiki.lfenergy.org/display/HOME/New+Proposals+Process>

## **Requirements:**

<https://wiki.lfenergy.org/display/HOME/Technical+Project+Lifecycle>

## **Name**

Open Sustainable Technology

## **Mission statement**

Preserving a stable climate, natural resources and biodiversity with open source technology.

## **Description (what it does, why it is valuable, origin and history)**

Open Sustainable Technology is an informative platform and open science community that explores the impact, potential, and strategies of the open source movement for sustainable technology development, business and transition.

At the beginning of the project, the central goal was "to capture all projects that preserve the natural ecosystems through open technology, methods, data, intelligence, knowledge or tools." [Contribution Guide](#)

This goal has been achieved for now, and has allowed the community to systematically analyze the open source ecosystem as a whole to examine gaps, trends, growth, and the communities behind the projects. Through the unique analysis of an open source ecosystem, a wide range of [recommendations](#) were developed for strengthening existing projects and how additional projects can have a crucial impact for a sustainable transition.

The report, the existing community, the software tools developed, and the website are well on their way to becoming a one-stop solution for information about the intersection of open source and sustainable technology. The website is already very well known and highly ranked within search queries due to targeted marketing strategies and extensive maintenance of the database.

## **Is this a new project/working group/special interest group or an existing one?**

This is an existing project.

## **Current lead(s)**

Maintainer and lead of OpenSustain.tech Website: Tobias Augspurger  
Lead authors for The Open Source Sustainability Ecosystem 2023: Tobias Augspurger, Eirini Malliaraki, Josh Hopkins, Dan Brown

## **Sponsoring organization(s), along with any other key contributing individuals and/or organizations**

The development of the Report was supported by [Subak](#) and [OpenCorridor](#). [Tjark Döring](#) had a significant impact on the project in an early stage. The project

was supported by multiple people from LF Energy, (including John Mertic, Dan Brown and Shuli Goodman). Further supporters and contributors can be found in the [acknowledgements](#) of the last report.

***Detail any existing community infrastructure, including:***

***Github/GitLab, or other location where the code is hosted***

***Website and/or docs***

***Communication channels ( such as Mailing lists, Slack, IRC )***

***Social Media Accounts***

<https://opensustain.tech/>

<https://report.opensustain.tech/>

[https://raw.githubusercontent.com/prototypes/open-source-in-environmental-sustainability/main/OpenSourceSustainabilityEcosystem\\_080423.pdf](https://raw.githubusercontent.com/prototypes/open-source-in-environmental-sustainability/main/OpenSourceSustainabilityEcosystem_080423.pdf)

<https://github.com/prototypes/open-sustainable-technology>

<https://github.com/prototypes/AwesomeCure>

<https://github.com/prototypes/open-source-in-environmental-sustainability>

<https://twitter.com/prototypes>

[https://app.gitter.im/#/room/#prototypes\\_community](https://app.gitter.im/#/room/#prototypes_community)

***Are there any specific infrastructure needs or requests outside of what is provided normally by LF Energy ( please refer to the lifecycle for project benefits )? If so please detail them.***

- The database created by OpenSustain.tech provides a unique datasets for experimenting with Natural Language Processing in the area of sustainable technology. The infrastructure for training an neural network to discover new open source projects in this ecosystem would significantly reduce the workload needed for online research.

***Why would this be a good candidate for inclusion in LF Energy?***

A large proportion of the projects in the database are directly related to renewable energy, energy systems and energy efficiency. In particular, the development of renewable energy is closely related to weather, water, soil and biodiversity. Energy systems are also closely related to water supply, land use, and air quality. The monitoring of emissions in the energy supply as well as carbon offsets are also closely related to energy supply. The project could be instrumental in better understanding the roles of energy systems within a variety of environmental factors beyond greenhouse gas emissions.

The website can help to connect the worldwide open source ecosystem in sustainability with the Linux Foundation Energy. At the same time, a variety of projects in this area can benefit from the experience within the Linux Foundation on how to go the open source way.

The reports and data analysis produced as part of the projects can be instrumental in identifying trends, strategies, new projects, and organizations early on. The analytics can help to identify challenges / problems early within the open source ecosystem.

***How would this benefit from inclusion in LF Energy?***

LF Energy brings together a wide range of expertise in the field of decarbonization, energy systems and open source strategy. Being part of LF Energy would make it possible to raise the existing database to a new level of quality. Collaboration on the report can help further develop existing recommendations and policy recommendations on how open source can become a key driver for sustainable development.

At the same time, LF Energy brings the necessary experience on how to build a neutral governance structure and a strong community around the project. This ensures the long-term development of the project and the objective governance required for this field.

***Provide a statement on alignment with the mission in the LF Energy charter.***

Is this about LF Energy Guiding Principles?!: <https://wiki.lfenergy.org/display/HOME/LF+Energy+Guiding+Principles>

*Mission*

*Support society and the planet*

*Statement*

*The LF Energy ecosystem is designed and engineered to support rapid decarbonization that benefits the environment, enables economic prosperity, and leads to social well-being for future generations.*

*Rationale*

*To mitigate the worst of climate change, research scientists have concluded that power systems must lead global decarbonization efforts to remove fossil-fuel from our economies. Right behind power system transformation will be passenger vehicles, the built environment, and trucks. Together these interrelated efforts represent 75% of the carbon currently being emitted. Failure is not an option. \*\*\**

*The goal of LF Energy is to enable this energy and power system transformation in a way that ensures both the health of the world's economy and the health of people, the planet, and the well-being of future generations. Our mission is to provide a 21st century plan of action to respond to decarbonization of power systems, transportation, and buildings through open source, open frameworks, reference architectures, leveraged collaborative development, and a support ecosystem of complementary projects.*

OpenSustain.tech does align to 100% with the mission of LF Energy. The only difference is that in addition to the issue of climate change, biodiversity and natural resources are also included in the project, as both areas are closely linked to climate change. The project thus addresses sustainable technologies in their entirety.

***What specific need does this project/working group/special interest group address?***

From our report 2023:

A flourishing ecosystem of knowledge sharing and exchange between communities relies on networks and platforms where projects, ideas and news can be openly distributed. Prior to the formation of OpenSustain.Tech, many organisations, users and developers found it difficult to navigate active projects in and across topics in OSS for sustainability. Strengthening the interconnectivity of communities can alleviate contributor risk, provide opportunities for greater participation, and build capacity for more effective collaboration. The emergence and convergence of diverse groups play a vital role in consolidating and further developing shared values, visions, mindsets and ideas embodied within open sustainability principles.

***Describe how this project/working group/special interest group impacts the energy industry.***

Developing a sustainable energy system requires building bridges to different areas of environmental sustainability. Areas such as emissions monitoring, water quality assessment, bioenergy, and agriculture are directly related to energy systems. The project aims building a comprehensive understanding of how to ensure the sustainability of energy systems from different environmental perspectives.

***Describe how this project/working group/special interest group intersects with other LF Energy projects/working groups/special interest groups.***

The report's recommendations can help LF Energy projects fill important gaps as well as new open source strategies within the field. The experience gained by project members within the project work can be instrumental in advising other projects in their development.

***Who are the potential benefactors of this project/working group/special interest group?***

Anyone interested in the topic of sustainability and open source, including:

0. Developers looking for existing project to stop reinvent the wheel and foster innovation.
1. People who want to find a way to contribute to sustainability with open source.
2. People who want to learn about sustainable technologies and developments in general and broaden their perspective beyond their own niche.
3. People looking for similar people / organizations / projects in their subject area for possible collaborations.
4. Journalist looking for trusted data sources based on open source and open science in the field of environmental sustainability.

5. Scientist, companies and developers finding the ideal datasets / software to depend on.
6. Policy makers who want to bring transparency into sustainable decision-making processes with the help of open source.
7. Sustainable Investors looking for open source business opportunities and scientific proof for sustainable investments.
8. Educational resources for learning open source development based on sustainable use cases.

***What other organizations in the world should be interested in this project/working group/special interest group?***

At the moment it is not possible to get general information about open source in the field of environmental sustainability. Any organization working in sustainable development and technology could be interested in this project. Our Experience has shown so far that the open source approach is not yet widespread in the sustainability/climate change community and is often not fully understood within that community.

Organisations who want to learn from the Linux Foundation how the open source way work in the development of sustainable technology.

***Plan for growing in maturity if accepted within LF Energy***

- One of the most important steps will be to expand the website from an index to a news portal. In this way people will regularly revisit the website. To do this, the whole website must be rebuilt.
- A search function will be integrated into the website to browse projects based on the metadata that has already been created.
- The community is currently being significantly strengthened by members with diverse skill sets. This is to ensure in the long term that the project is carried on a number of shoulders.
- A neutral government structure is being established.
- Through regular guest articles, we can help better market open source projects around the world while creating regular content for the site. At the same time, such blogposts can help to increase public discussion of the mindset and principles of open source in the area of environmental sustainability.
- Better reviewing of existing projects and assesment.
- All issues we are working on at the moment can be found here:
- <https://github.com/prototypes/open-sustainable-technology/issues?q=is%3Aissue+is%3Aopen+sort%3Aupdated-desc>

**Expected deliverables**

Website, Annual reports, Generic Open Source Tooling for Open Source Ecosysteme Analytics, Database, Blog Posts, presentations and several scientific publications.

**Is this related to an existing project**

The projects is related to the Landscape projects in some parts.

**Any existing materials or assets that will be seeded to the standards project**

The project has no assets to date.