

#### Amazon Research Awards

#### SUSTAINABILITY

# Sustainability call for proposals — Spring 2024

Addressing the challenges associated with generating consistent, transparent, and accurate carbon measurements.



### **About this CFP**

Amazon's Sustainability Research Awards program invites proposals for innovative projects that merge machine learning (ML) and artificial intelligence (AI) techniques with life cycle assessment (LCA) methodologies to support carbon abatement strategies. This call seeks to fund projects that address the challenges associated with generating consistent, transparent, and accurate carbon measurements.

The aim of this initiative is to significantly advance the comparability of LCAs within the manufacturing, transportation, and agriculture sectors. Central to this effort is the provision of datasets, methodologies, and tools that can effectively validate that assumptions, process flows, and emission factors are uniformly applied across assessments. This focus acknowledges the critical need for verifiable data and assumptions that underpin sustainable decision-making processes. Proposals should address challenges in creating accessible solutions that ensure LCA data can be easily scrutinized and validated by stakeholders, reinforcing trust in sustainability metrics and facilitating more informed decisions. Proposals should clearly articulate how they will deliver tangible, practical outputs such as code and data, emphasizing mechanisms for ensuring data integrity and consistency in LCA practices.

#### Timeline

Submission period: March 27 to May 7, 2024 *(11:59PM Pacific Time)*. Decision letters will be sent out August 2024.

### **Award details**

Selected Principal Investigators (PIs) may receive the following:

- Unrestricted funds, from \$50,000 to \$100,000
- AWS credits: up to \$40,000
- Training resources, including AWS tutorials and hands-on sessions with Amazon scientists and engineers

Awards are structured as one-year unrestricted gifts. The budget should include a list of expected costs specified in USD, and should not include administrative overhead costs. The final award amount will be determined by the awards panel.

### **Eligibility requirements**

Open to researchers worldwide. Proposals must focus on the application of ML/AI to enhance LCA methodologies or datasets, with an emphasis on scalability, generalizability, and open-source distribution.

Please refer to the ARA Program rules on the <u>FAQ page</u>.

### **Proposal requirements**

Proposals should be prepared according to the <u>proposal template</u>. In addition, to submit a proposal for this CFP, please also include the following information:

- Description of the proposed solution and its innovative aspects
- Explanation of how the project addresses the specified challenges
- Plan for the development and implementation of the methodology or dataset
- Potential impact on sustainability in the targeted sectors
- Inclusion of Category Rules across Environmental Product Declarations and Product Environmental Footprints where applicable
- List of open-source tools you plan to contribute to.
- List of AWS ML tools you will use.

### **Selection criteria**

Proposals will be reviewed by a panel of experts in machine learning, LCA, and sustainability. Proposals will be evaluated on the following:

- Immediate and sizable impact on carbon abatements (i.e., reducing greenhouse gases)
- Practicality and scalability of the solutions that can support measurement validations
- Feasibility and clarity of the proposed approach
- Potential for widespread adoption and implementation
- Feasibility to open source

# **Expectations from recipients**

To the extent deemed reasonable, Award recipients should acknowledge the support from ARA. Award recipients will inform ARA of publications, presentations, code and data releases, blogs/social media posts, and other speaking engagements referencing the results of the supported research or the Award. Award recipients are expected to provide updates and feedback to ARA via surveys or reports on the status of their research. Award recipients will have an opportunity to work with ARA on an informational statement about the awarded project that may be used to generate visibility for their institutions and ARA.

### How to apply

When you're ready to submit your proposal, use the button below and follow the instructions on the site.

Submit your proposal

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