software stewardship lab

A new non-profit research lab dedicated to ensuring the stability of the global Open Source ecosystem we all rely on.

MISSION

We are a non-profit research lab that safeguards global tech infrastructure by caring for the Open Source technology it relies upon. We develop ways to make the Open Source ecosystem more secure, sustainably funded, and responsibly governed. We do this to benefit the public and protect critical services that depend on Open Source, like transportation, healthcare and the internet.

STRATEGY

Our team identifies threats to the global Open Source ecosystem and mitigates them by producing software, APIs, informal research reports, and peer-reviewed research papers. We work directly with maintainers to help them implement our solutions.

Our work in increasing software supply chain transparency has enabled developers to understand the propagation of vulnerabilities, and to identify critical maintainers that need support. And our work on sustainable funding and governance systems has helped widely-deployed projects avoid maintainer burnout so that they can continue their critical work.

EXPERIENCE

Our staff of industry specialists and doctoral researchers have held senior or founding roles at internationally impactful Open Source initiatives like the Open Source Pledge, the Open Source Endowment, thanks.dev, ecosyste.ms, libraries.io, CHAOSS, Nuxt, Vite, npmx and others; have contributed to organisations such as the Gates Foundation, the University of Oxford, Intel, VMware, GitHub and Tidelift; and have been part of working groups at Alpha-Omega, OpenSSF, CNCF, the Linux Foundation, and CycloneDX.

Values

PUBLIC GOOD

Our projects must provide a clear benefit to the public; and not put the public at disproportionate risk of harm, eg through drastic environmental consequences or the creation of monopolies.

PUBLIC ACCESS

All our research outputs are accessible and usable by all. Across our different outputs, this means Open Source code, open data, and open access research papers.

SYSTEMIC IMPROVEMENTS

We aim for widely-applicable systemic solutions, instead of fixes for particular technologies. Our goal is to improve the software ecosystem for current and future developers, not to help current developers shape themselves to fit a bad system.

INTERDISCIPLINARITY

Safeguarding tech infrastructure also requires non-technical goals, such as responsible governance, healthy communities, good working conditions and respect. Our work is rooted in software, but we strive for solutions that encompass the social, ethical and policy dimensions of Open Source.

DECENTRALISATION

We promote sharing and distributing power over technology. We want users to be able to shape the tech they use so that it meets their needs and works in their best interests.

INTERDEPENDENCE

We aim to advance public knowledge about the webs of interdependence that constitute our global tech infrastructure. We want more people to be aware that the tech we have today is made possible by thousands of developers collaborating openly, building on and trusting in each others' work.

Team

Vlad-Stefan Harbuz

vlad.website

Executive Director, Researcher

Maintainer of the Open Source Pledge, which has raised $7,156,281 for maintainers. thanks.dev core developer. Helped build software used by the Gates Foundation to allocate $1B in healthcare funding.

Miranda Heath

mirandaheath.website

Non-Executive Director, Researcher

BPS award-winning psychologist and author of the to-date most comprehensive report on burnout in Open Source. PhD researcher in moral psychology and philosophy at the University of Edinburgh.

Andrew Nesbitt

nesbitt.io

Non-Executive Director, Researcher

Creator of leading Open Source intelligence providers ecosyste.ms and libraries.io. Organiser of the FOSDEM Package Management devroom. Previously an engineer at GitHub and Tidelift.

Daniel Roe

roe.dev

Non-Executive Director

Leader of globally-used web framework Nuxt. Steward of package manager frontend npmx. Regular keynote speaker, Microsoft MVP, Google GDE, and GitHub Star.

Dawn Foster

fastwonder.com

Non-Executive Director

Former Director of Data Science at CHAOSS. Helped develop Intel's global Open Source engagement strategy. PhD in software metrics.

Matias Capeletto

patak.cat

Non-Executive Director

Steward of npmx. Core developer of foundational web development tools used by millions, such as Vite, Vitest and e18e. Previously at StackBlitz.

Mike McQuaid

mikemcquaid.com

Advisor

CTPO at Administrate. Project Leader of Homebrew. Former GitHub Principal Engineer (#232). Author of Git in Practice.

Incorporation & Funding

We have incorporated as a Scottish non-profit with number SC893294. Our focus is global, not UK-specific.

Will seek funding in two forms:

- Per-project grants, used to contract researchers, producing specific research outputs.
  - We are developing a partnership with NSOC, a new research lab at NYU Tandon led by renowned professor and software supply chain researcher Justin Cappos. This partnership is likely to help us (and NSOC) to secure funding.
- Yearly sponsorships, primarily from companies, which will fund
  - short-term research projects, and
  - open-ended stipends to researchers in the long term.

Research Themes

SUPPLY CHAIN SECURITY

We make targetted contributions across different language and operating system package managers to improve the security of critical software supply chains.

Securing Phantom Binary Dependencies

Phantom binary dependencies are packages that are widely depended upon, but invisible. This puts our global tech infrastructure at risk. We're building tools to secure these globally critical dependencies across language ecosystems.

Read more →

Traceable Builds

Household appliances are stamped with information allowing us to trace their origins. But identifying the exact code a package was built from is difficult. Building better tooling makes progress towards full traceability.

Read more →

SUSTAINABLE MAINTAINERSHIP

Open Source developers navigate enormous workloads, insecure funding and toxic community behaviour. We re-imagine working conditions in Open Source to change this status quo.

Burnout in Open Source

The maintainers our digital ecosystems rely on are burning out. We identify the causes and recommend systemic changes to help maintainers create, sustain and flourish.

Read more →

Sustainable Funding

We find answers to the core questions of Open Source funding: who should pay for OSS development, and to whom should the money go? Can we identify contributions our projects depend on that go *beyond* source code, such as standards?

Read more →

SHARED GOVERNANCE

If few people maintain and govern critical Open Source software, all the technical infrastructure reliant on it is vulnerable. We research ways of distributing power and responsibility to keep software ecosystems resilient.

Effective Collective Governance

When critical infrastructure is owned by a powerful few, a risk of unilateral takeovers threatens all the packages and source code that depends on it. We look for effective models of collective governance to mitigate this risk.

Read more →

Finding the 4000

We have estimated that around 4,000 developers are responsible for the packages that make up 80% of all downloads. Who are these keystone maintainers? *How* are they? What support do they need to ensure these packages are stewarded well?

Read more →

Roadmap

2026 Q1	✓ *Create initial mission, strategy and values* ✓ *Create brand*
2026 Q2	✓ *Finalise mission, strategy and values* ✓ *Recruit board members* ✓ *Create research themes* ✓ *Write articles of incorporation* ✓ *Incorporate* ✓ *Publish website*
2026 Q3	✓ *Create sponsorship and crowdfunding channels* ✓ *Create a community for OSS sustainability researchers* Publish launch post Approach potential funders Use marketing partnerships to raise sponsorship funds Apply for short-term grants
Long-term goals	Raise enough funds to offer open-ended stipends to researchers

Interested? Have questions?

Visit our website, join our Discord server to talk to a community of Open Source sustainability experts, or get in touch.