Lab Website Template

AN EASY, AUTOMATIC, FLEXIBLE WEBSITE TEMPLATE FOR LABS

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INTRODUCTION

Research labs need a professional and up-to-date website to showcase their work, attract collaborators, and establish an online presence, but developing and maintaining one can be challenging and time consuming. **Lab Website Template** is an open-source tool that **automates citation generation**, **repo configuration**, and **anything else it can**, letting labs focus more on research and less on web development and grunt work.

APPROACH

Before v1.0, we gathered many observations and direct feedback that shaped our approach. Some things we noticed:

- The most **common pain points were about the same things** same things, like repo setup and configuring key options.
- Labs can't waste time on basics or low-level details, but still need ways to customize things when needed.
- Users want to see that software is **actively maintained**, greatly sold by good support.

Some philosophies we adopted to address these needs:

- **Doing is better than instructing.** Aggressively experimenting with GitHub Actions and scripting, we saw we could automate much more setup/config/etc. than we thought.
- **Don't let issues languish.** We respond quickly and discuss suggestions to make users feel heard, even if actual resolution takes longer.
- **Keep it simple and focused.** We earnestly consider all feedback, but also don't accept every suggestion at face value to avoid feature/config bloat (*inner-platform effect*).
- **Docs are essential.** Code/comments are not enough. We invested in writing a dedicated GitBook site with examples, guides, diagrams, search, etc. that lets users help themselves for common things and saves us time in the long run.
- **Cleanly structure content.** We separate "under-the-hood content" from "user content" so users can focus on just what's important.
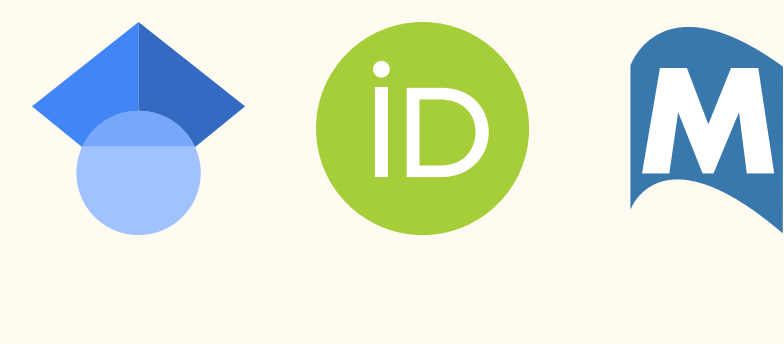
TECHNOLOGIES

Jekyll	Static site generator. Long/widely supported.	GitHub	Pages for hosting. Actions for automation.
Markdown	For user content. Liquid for templating.	Python	Cite-process scripts. Familiar for researchers.
Docker	Runs template locally. Cross-platform. Single install.	Ruby	Data filtering. Other misc.

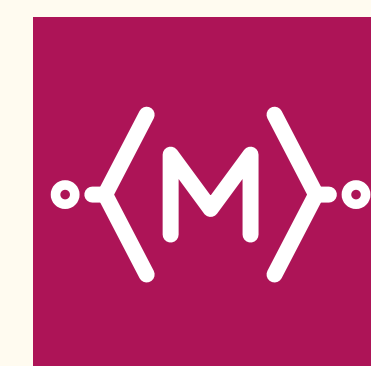## AUTO-CITE PROCESS

Who wants to manually manage citations?

Simple input → Auto-magic → Rich output

```
orcid.yaml
- orcid: 0000-1111-2222-3333
```

User inputs "**meta-sources**" as **simple IDs**.

We **auto-expand** these into **full lists** of sources from ORCID, Google Scholar, or PubMed (extendable with plugins).

```
sources.yaml
- id: doi:12345
  image: thumbnail.jpg
  tags: biology, data
```

User inputs "**manual**", hand-picked **sources** as simple IDs (2k+ supported types), along with extra rich details.

We use Manubot to auto-generate full citations – title, authors, date, publisher, etc. – for all sources.

```
research.md
{%
  include list.html
  data="citations"
  filter="category == 'featured'"
%}
```

User includes citations in their site however they want with the **list component**, filtering using **any Ruby expression** (much better than Liquid).
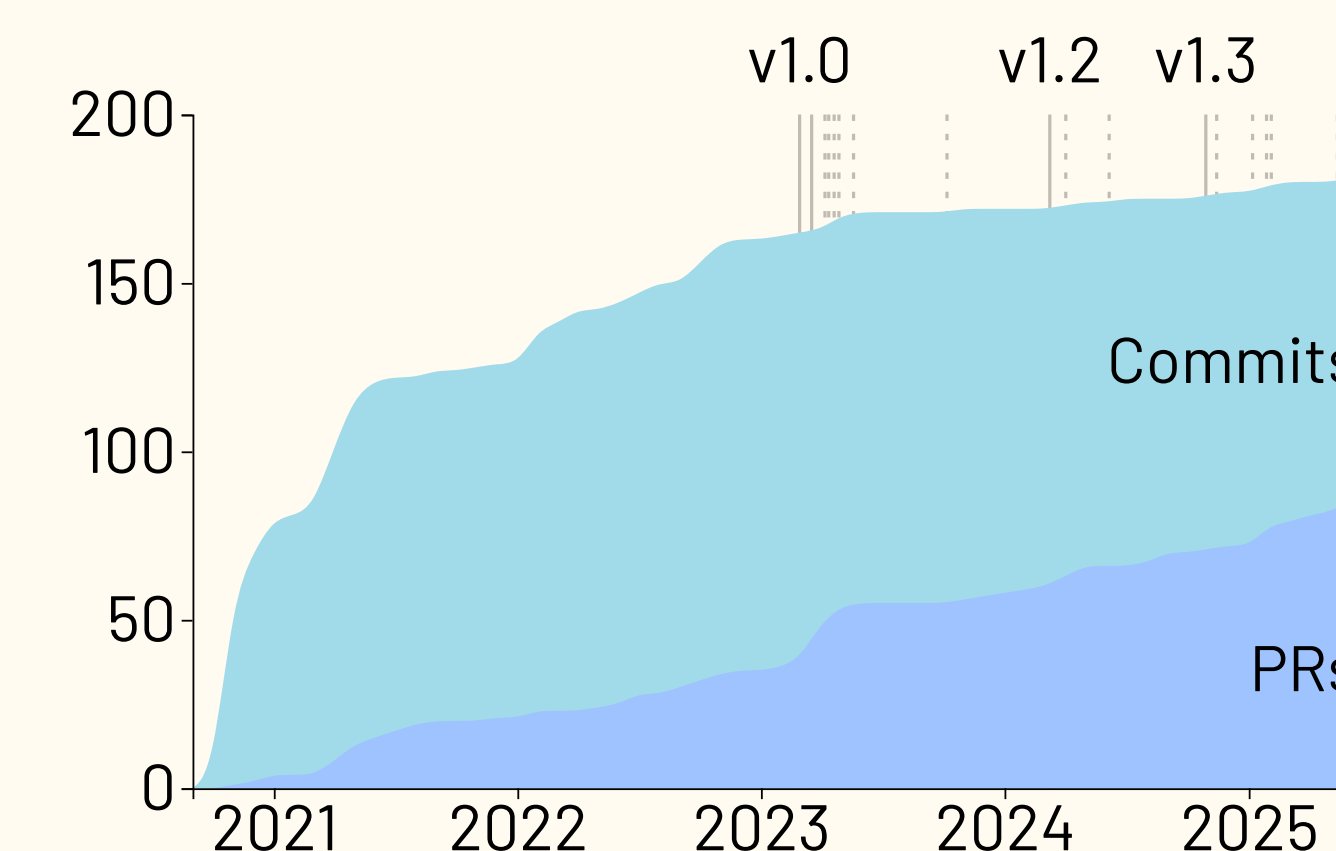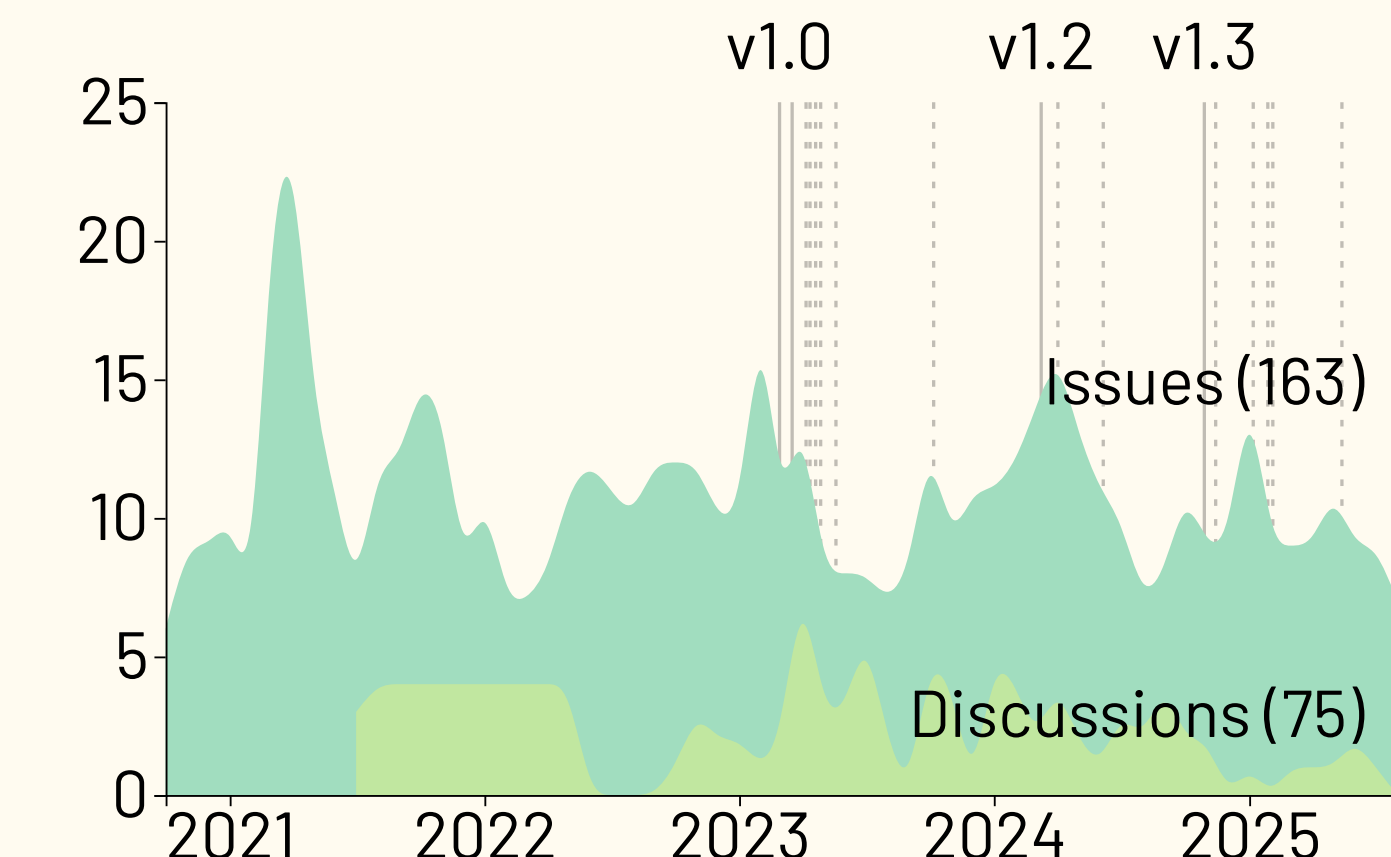
SETUP, PREVIEWS, DEPLOYMENT

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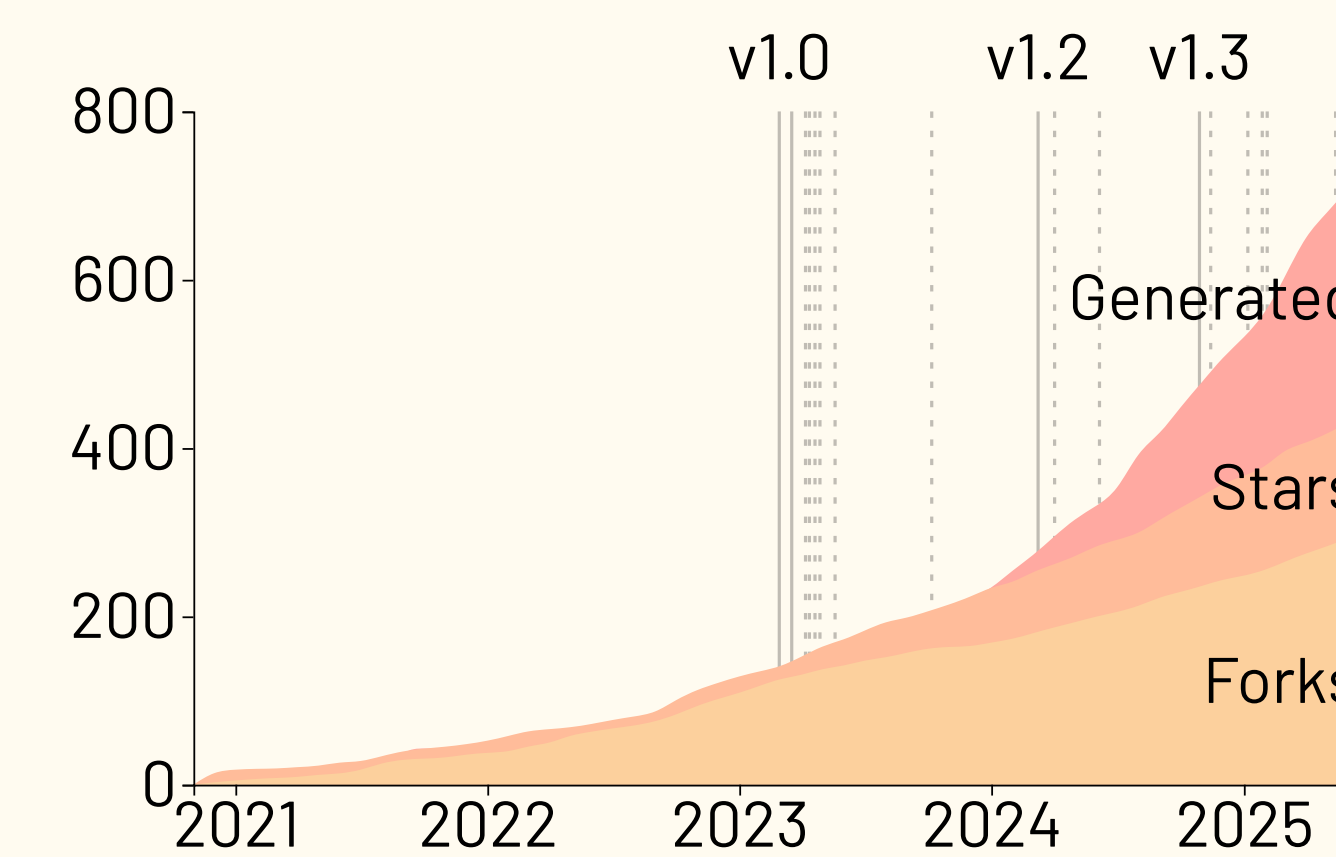
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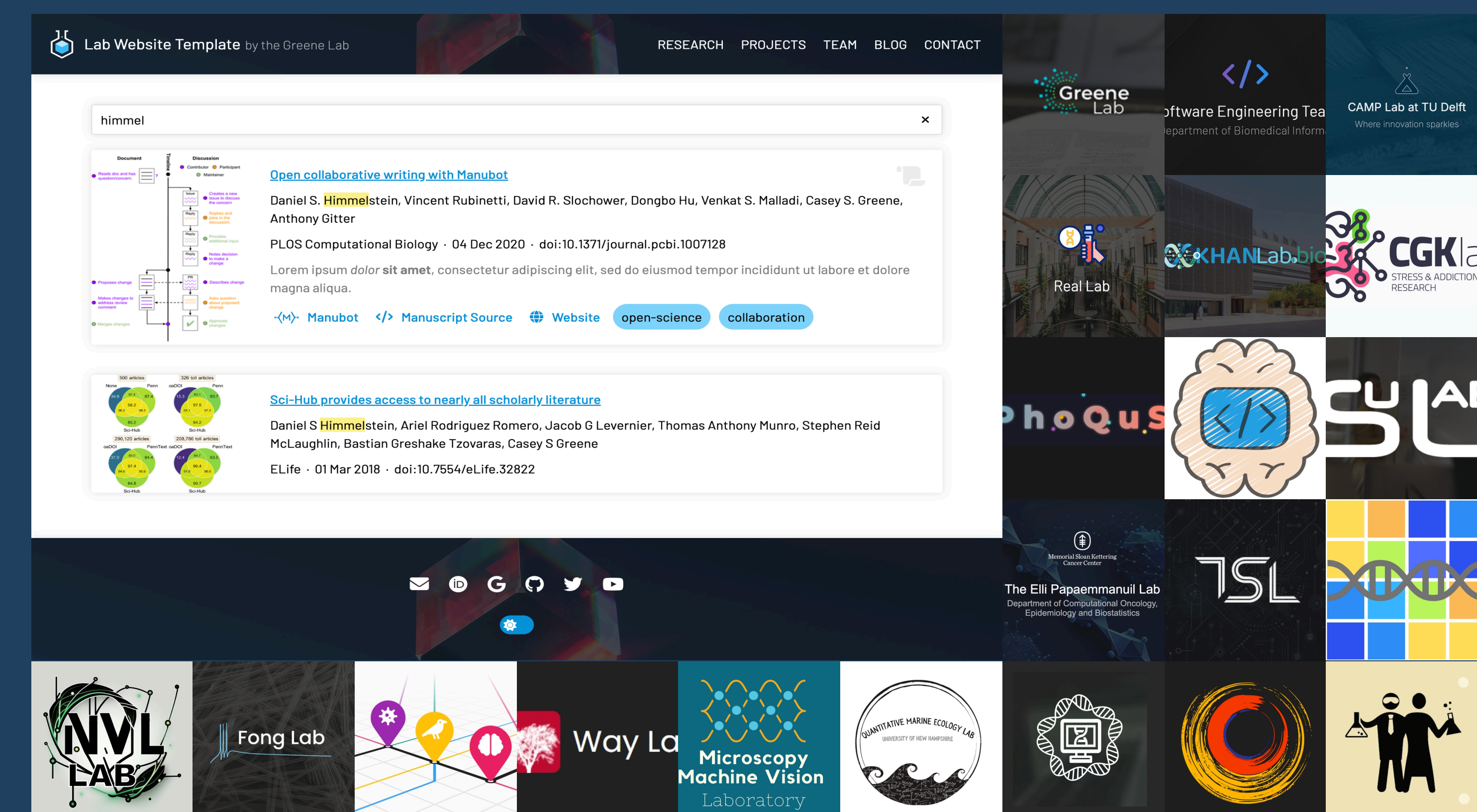
OUTCOME

We believe **our approach and design lead to an effective piece of software**, evidenced by the template's growing adoption on GitHub, direct positive feedback, and gallery of active labs using it. This work has saved time and money for research labs and other groups, reflecting a community resource that serves the needs of its users.

Median...	Response	Resolution
Issue	3.5 hrs	12 days
Discussion	2 hrs	10 hrs

The next evolution of this template could focus on even more convenience, simplicity, robustness, and flexibility, like using a modern site generator with type-safety, making template version upgrades automatic, and making citations even more seamless.

TEMPLATE   USRSE 2025

HOME   POSTER