Managing an open source project

Open Source Sweden, Augusti, 2023

Welcome.

Hello, my name is Magnus Glantz

In the Open Source ecosystem since 1995, worked with open source since 2001

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The world's leading provider of open source enterprise IT solutions

MORE THAN
90%
of the
FORTUNE
500
use
RED HAT
PRODUCTS &
SOLUTIONS*

~20 000
EMPLOYEES

105+
OFFICES

40+
COUNTRIES

THE FIRST
$3
BILLION
OPEN SOURCE COMPANY
IN THE WORLD

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Red Hat actively contributes to thousands of Open Source projects, including all key Linux, container and Kubernetes projects - including over 30 different standards bodies. The most significant contributions are listed here.

Full report: red.ht/enterprise

Source: The State of Enterprise Open Source: A Red Hat Report, Conducted by Red Hat via Illuminas, 2021

KUBERNETES (SIGs & WGs):

RED HAT ENGINEERING LEAD or CO-LEAD: 24 of 43 GROUPS

API MACHINERY	APPS	ARCHITECTURE	AUTH	AUTO SCALING	AWS
AZURE	BIG DATA	CLI	CLOUD PROVIDER	CLUSTER LIFECYCLE	CLUSTER OPS
CONTRIBUTOR EXPERIENCE	DOCS / GCP	IBM CLOUD	INSTRUMENTATION	MULTICLUSTER	NETWORK
NODE	OPENSTACK	PRODUCT MANAGEMENT	RELEASE	SCALABILITY	SCHEDULING
SERVICE CATALOG	STORAGE	TESTING	UI	VMware	WINDOWS
APP DEF	APPLY	COMPONENT STANDARD	CONTAINER IDENTITY	IoT EDGE	K8S INFRASTRUCTURE
KUBEADM ADOPTION	MACHINE LEARNING	MULTI TENANCY	POLICY	RESOURCE MANAGEMENT	SECURITY AUDIT

https://github.com/kubernetes/community/blob/master/sig-list.md

LINUX KERNEL (SUBSYSTEMS): EXAMPLE OF RED HAT ENGINEERING MAINTAINERS

X86 Architecture	X86 Platform drivers	VM Sockets	VIRTIO	VIrt Lib	Utils-Linux package
Scheduler	PTRACE	Networking	Networking drivers	Linux Kernel Memory Consistency Model	Keys/Keyrings
Kernel Virtual Machine	KDUMP	Locking primitives	ISCSI	Heterogeneous Memory Management	Device Mapper (LVM)
Certificate handling	Cachefiles	Audit subsystem	Asymmetric keys	VFIO	VFIO Driver
FUTEX subsystem	Performance subsystem	ZBUD Compressed Page Allocator	ZSWAP Compressed SWAP allocator	TIPC Network layer	QEMU Machine Emulator
Distributed Lock Management	DRM DRIVERS (Graphics subsystem)	HID Core Layer			

https://docs.kernel.org/process/maintainers.html#maintainers-list

Anyways...

Today's workshop

- **Part 1:** Preparing to launch your open source project
- **Part 2:** Setting strategy for your open source project
- **Part 3:** Measuring your project's health and sustainability

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Part 1: Preparing for launch

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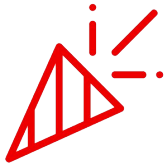

Launching a new open source project is an exciting process.

It's also a complex one.

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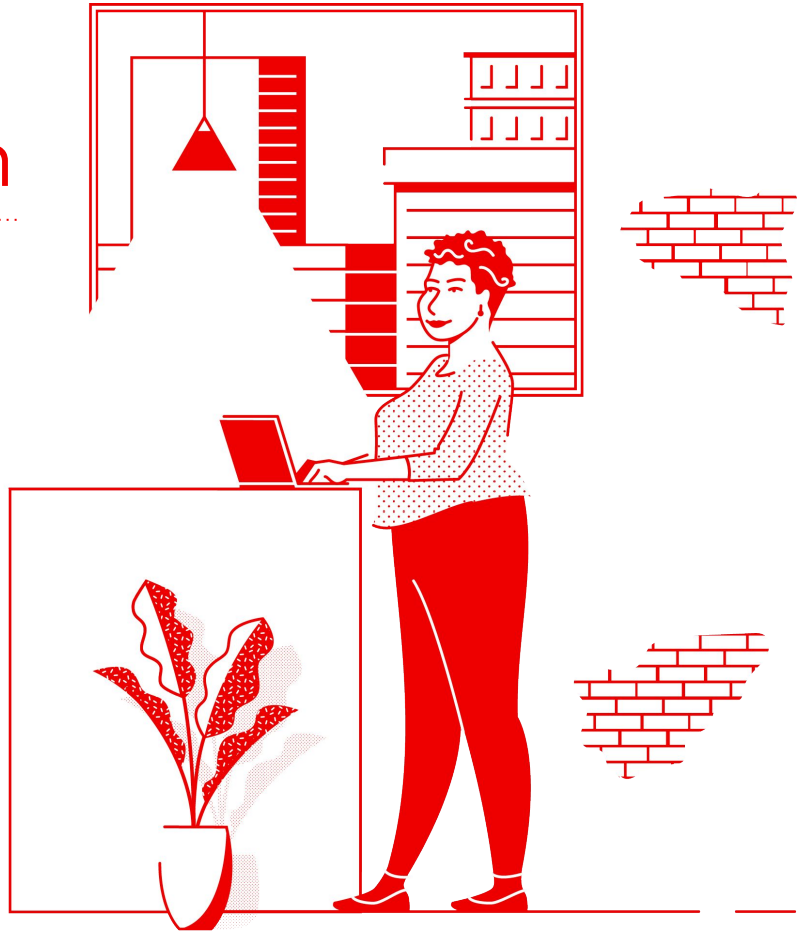
Our goals for this section

- **Outline** basic considerations a person, team, or organization should make when launching a new open source project
- **Discuss** some questions you might ask as you address these considerations



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Basic considerations

- Project goals and market positioning
- Project identity and brand
- Licensing and legal
- Governance
- Infrastructure and financing
- Metrics and sustainability

Project goals & market positioning

Establish a strategy for your open source project before you launch it.

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Project goals and market positioning

Outline technical problems that the project solves

Describe the project's purpose. How will it improve people's lives and work?

Define the project's target users and value proposition

Identify the type of user you imagine will benefit from using this project.

Survey landscape, articulate the project's key differentiators

Your project will likely join an ecosystem of similar open source projects. How will you interact with them?

Establish an initial roadmap (with tentative milestones)

Successful projects begin with a sense of direction. What features will you prioritize at launch?

Source: How to launch an open source project (Red Hat)
Developing an Open Source strategy (Red Hat)

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Project identity & brand

Think about your project's name and logo prior to launch.

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Project identity and brand

Compile a list of candidates

Gather key stakeholders and brainstorm a list of qualities your project's name should have.

Design a logo

Your project will need a visual identity. Follow a process similar to the one you followed when developing a name.

Examine prior art

Your project's name and logo should not infringe on existing trademarks.

Reserve your assets

Determine which tools, platforms, and services your project will require, then reserve appropriate accounts on those services.

Source: How to launch an open source project (Red Hat)

Licensing & legal

No open source project can completely avoid legal considerations. Don't skip this part.

Licensing and legal

Determine criteria for the license

Your project's license will determine how others can use and engage with it.

Choose a license

Compile the research you conducted in the previous step, then choose an open source license that satisfies all stakeholders.

Register your trademarks

This step varies by project, so consult your legal counsel.

Source: How to launch an open source project (Red Hat)

Governance

Before launching an open source project, you will want to consider how it (and its community) will operate.
(click to read more).

Red Hat

Governance

Outline community roles and responsibilities

Record the various functions contributors can perform in your project and community.

Define the governance model and processes

Describe your project's governance model and sketch preliminary governance processes.

Set provisions for subprojects and life-cycle management

Consider how to oversee the maturation of project components and manage required dependencies.

Source: How to launch an open source project (Red Hat)

Governance

Create a privacy policy

This document helps contributors understand if the project requires the use of personal data, and if so,how it is handled.

Establish a code of conduct

Outline norms and expectations for participation in the project and community. Be sure to outline consequences for infractions.

Explore foundation memberships (if necessary)

Ensure your project meets the foundation's requirements for acceptance.

Source: How to launch an open source project (Red Hat)

Infrastructure & financing

Open source projects require significant infrastructure—even from the start.

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Infrastructure and financing

Establish funding provisions

Identify sources of project funding and discuss key funding processes.

Select administrators for domains and social media accounts

Determine who will register your project's domains and social media accounts.

Identify trademark holders

Who will hold and protect trademarks, such as your project's name and logo?

Implement essential tooling

Consider the following common components of open source project infrastructure.

Source: How to launch an open source project (Red Hat)

Common tooling

- Code repositories and issue trackers
- Development and testing tools
- Email and mailing list servers
- Project documentation platform
- Web conferencing platform
- Community forum
- Community chat tools
- Community calendar

Metrics & sustainability

Successful projects feature successful communities. Consider how you will support your community.

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Metrics and sustainability

Establish a diversity and inclusion plan

The most successful open source projects welcome a diverse set of contributors.

Outline a vision for community health and metrics

How will you know if your project has been successful?

Source: How to launch an open source project (Red Hat)
"Measuring open source project health" (Red Hat)

Additional resources

Download the checklist

red.ht/OSPOresources

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Overview

How to launch an open source project

Launching a new open source project is an exciting, yet complex, process. Use this checklist to guide your team through a successful project launch.

Project goals and market positioning

Establish a strategy for your open source project before you launch it. See "Developing a strategy for your open source project" for more detail.

- **Outline technical problems the project solves**
  Describe the project's purpose. Will this project help people do something new? How will it improve their lives and work?
- **Define the project's target users and value proposition**
  Identify the type of user you imagine will benefit from using this project. What role does that person play in an organization? What challenges does that person face? How will this project help someone overcome those challenges?
- **Survey the landscape and articulate the project's key differentiators**
  Your project will likely join an ecosystem of similar open source projects. Why would users choose your project over others? Why will potential contributors want to work on your project rather than others? Your project will also likely rely on (and integrate with) others. Document your relationships with those projects. Why launch a new project rather than join another one in this ecosystem?
- **Establish an initial roadmap (with tentative milestones)**
  Successful projects begin with a sense of direction. What features will you prioritize at launch? How often will you release new versions of the project? How quickly do you want to grow a contributor base? What are your community milestones?

Project identity and brand

Think about your project name and logo before launch.

- **Compile and vet a list of candidates**
  Gather key stakeholders and brainstorm a list of qualities your project's name should have. Then develop a list of possible names. Identify your top choices. Determine if any of your favorites are already in use.
- **Design a logo**
  Your project will need a visual identity. Follow a process similar to the one you followed when developing a name. Sketch some ideas. Seek stakeholder input.
- **Examine prior art**
  Your project's name and logo should not infringe on existing trademarks. Do your homework to avoid confusion.
- **Reserve your assets**
  Register a domain for your project's website. Determine which tools, platforms, and services your project will require, then reserve appropriate accounts on those services.

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Source: How to launch an open source project (Red Hat)

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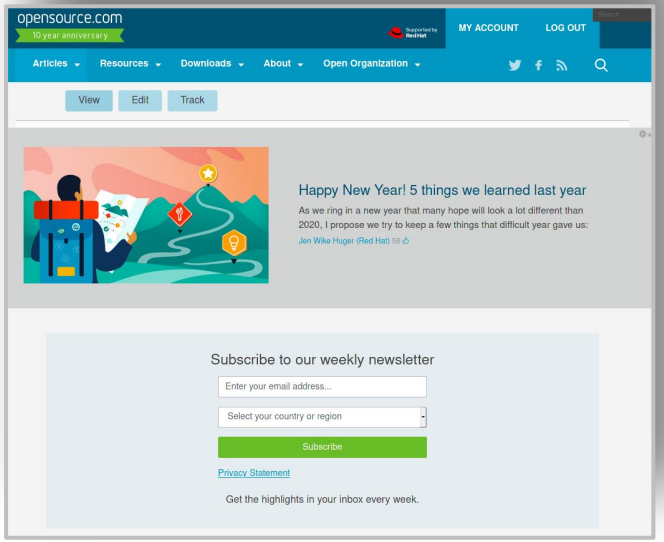
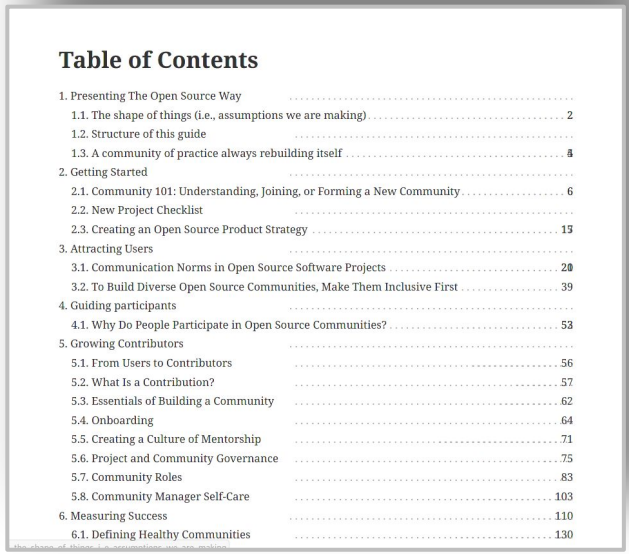


Read a guide



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Study best practices

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Let's review.

Launching an open source project

- **Project goals and market positioning**
  - Outline technical problems that the project solves
  - Define the target users and value proposition
  - Survey landscape, articulate the project's key differentiators
  - Establish an initial roadmap (with tentative milestones)
- **Project identity and brand**
  - Compile a list of candidates
  - Design a logo
  - Examine prior art
  - Reserve your assets
- **Licensing and legal**
  - Determine criteria for the license
  - Choose a license
  - Register your tremarks
- **Governance**
  - Outline community roles and responsibilities
  - Define the governance model and processes
  - Set provisions for subrojects and life-cycle management
  - Create a privacy policy
  - Establish a code of conduct
  - Explore foundation memberships (if necessary)
- **Infrastructure and financing**
  - Establish funding provisions
  - Select administrators for domains and social media accounts
  - Identify trademark holders
  - Implement essential tooling
- **Metrics and sustainability**
  - Establish a diversity and inclusion plan
  - Outline a vision for community health and metrics

Source: How to launch an open source project (Red Hat)

Time for a ~~break~~.

Part 2: Develop your strategy

The hardest part about launching a free software project is transforming a private vision into a public one. You or your organization may know perfectly well what you want, but expressing that goal comprehensively to the world is a fair amount of work. It is essential, however, that you take the time to do it.

Karl Fogel, *Producing Open Source Software*

Fogel, K. *Producing Open Source Software*.

Our goals for this section

- **Review** key questions to ask as you develop a strategy for your open source project
- **Assess** your motivations for establishing this strategy, **locate** resources available for pursuing it, and **identify** the organizational stakeholders who will help you achieve your goals
- **Outline** a basic strategy for your open source project and understand how to **initiate** that strategy

Frame your strategy

- What is the project?
- Who are the project's users?
- How do you engage with your user base today?
- What alternatives to your project already exist?
- Are you already associated with adjacent projects?
- What are your goals for the project?
- Who are your key stakeholders?

Exploring the questions

1

What is the project?

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This is the fundamental question.

- Explain the project as clearly and concisely as possible.
- Avoid complex or abstract language; speak in concrete terms.
- Eliminate jargon and industry-specific buzzwords.
- Imagine you're explaining the project to a complete novice.

Some examples

"Istio is a service mesh."

"Istio is a framework that allows you to manage each application's data plane from a central control center."

"Istio is a central switchboard that lets you control the observability of network traffic between microservices across your enterprise."

"Istio is like a traffic system for your application. A proxy used by Istio sits in front of each application node and directs traffic coming into and out of the node. Traffic rules are set in a central control center for the application."

2

Who are the project's users?

Initial questions to consider

- What must be done?
- How does the software help someone accomplish this?

- Who (what type of user, occupying what type of role, in what type of organization, in what vertical) is most likely to need to accomplish that task?
- Who would use this software to do it?

Follow-up questions

- Is the project more useful to an individual or an organization?
- How much do you expect the project to grow and change (if at all) as more people use it? How will you accept modifications and contributions from others?
- Is your project particularly useful in a specific industry vertical or business domain?
- What size organization will find your project most useful? Are you targeting system administrators in large enterprises, or small and medium-sized businesses?
- Who will be downloading the software? Who will be installing the software? Who will be using the software? Are these the same people, or do they differ? Are the users different from the administrators?
- What is the relationship between the people who download and install open source projects and the people who evaluate and purchase commercial products?

3

How do you engage with your user base today?

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Low touch	Medium touch	High touch
Purpose		
Raise awareness of your project and encourage users to look at it for the first time	Produce a network effect by facilitating communication with users and enabling those users to help one another	Build relationships with key community users, gather community case studies, and convert users into project contributors and advocates
Reach		
Extensive, because they can impact a broad range contributors	More limited, because techniques become more personalized	Most limited, because techniques are highly localized and individualized
Interactions		
Might feel impersonal	Increasingly individualized	Extremely personal
Cost		
Lowest cost to you, as they enabled self-directed activities from users	Additional personalization and infrastructure increases costs	Costs are highest, as techniques involve sustained and continuous engagement

Think about the methods you're already using to engage users.

Low touch

Project website and documentation, pre-recorded or automated online training, newsletters, podcasts, and blogs

Medium touch

Project mailing list, bug tracker, community forum, webinars, user groups, and conference presentations

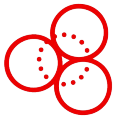
High touch

Phone calls, personalized and guided training, conversations at conferences, and community meetings

4

What alternatives to your project already exist?

Initial questions



Does your project have any direct competition?

How do other open source projects solve the problem differently than yours does?

The upstart disruptor

The market pioneer

Red Hat

5

Are you already associated with adjacent projects?

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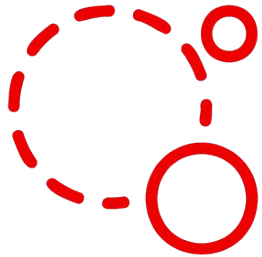

Do people frequently use your software in conjunction with another project?

An example

Red Hat

6

What are your goals for the project?

Why?

- "We want to grow a market."
- "We want to promote a standard."
- "We want to disrupt a competitor."
- "We want to increase demand for another product in our portfolio."

Additional benefits

- Establish project funding priorities
- Align engineering, product, sales, and other teams around your strategy
- Identify the metrics you'll use to measure your strategy's success

Red Hat

7

Who are your key stakeholders?

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Only a small group of people will be deeply invested in the success of the project and can represent the diverse set of interests that are important to its development.

These are your stakeholders.

An example

For a vendor-supported project

- an engineering lead
- a representative from product management
- a member of product marketing
- a representative from the field
- a member of content services or support organizations
- a member of product security

Let's review.

What is the project?

Who are the project's users?

How do you engage with your user base today?

What alternatives to your project already exist?

Are you already associated with adjacent projects?

What are your goals for the project?

Who are your key stakeholders?

Part 3: Assessing project health

Why care about project health?

Assess risk

Evaluate sustainability

How have we measured project health?

Project A

- 5,000 downloads per week
- 25 active contributors
- 30 monthly social media posts
- 10 releases per year

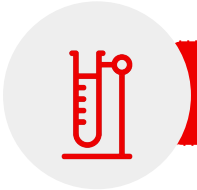
Healthy?

Project B

- 50 merged code commits per month
- 30 issues closed each week
- 20 messages on mailing list per week
- 2,000 daily website views

Healthy?

More effective assessment of open source project health



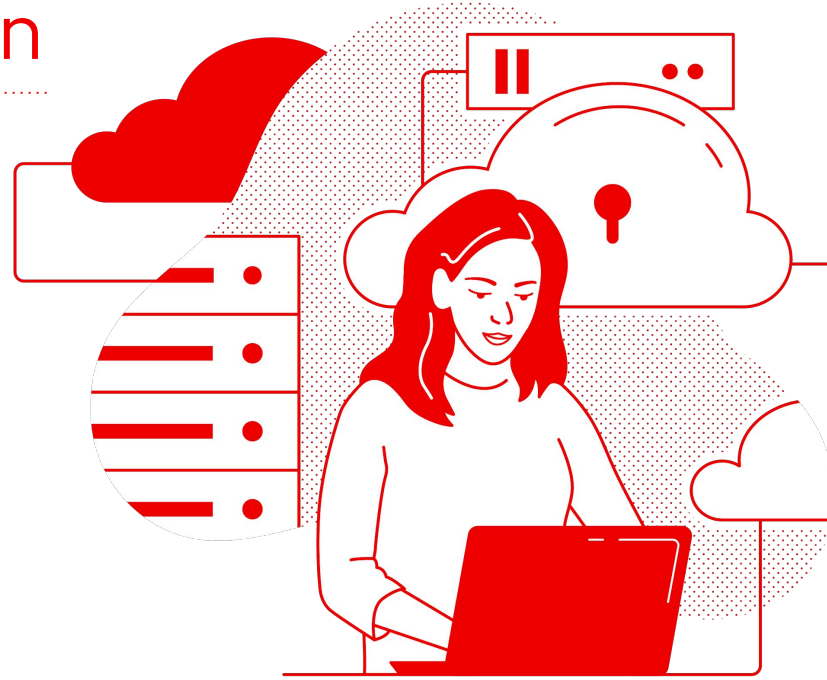
A standardized set of qualities and associated metrics

Attention to project culture and dynamics (not just "outputs")

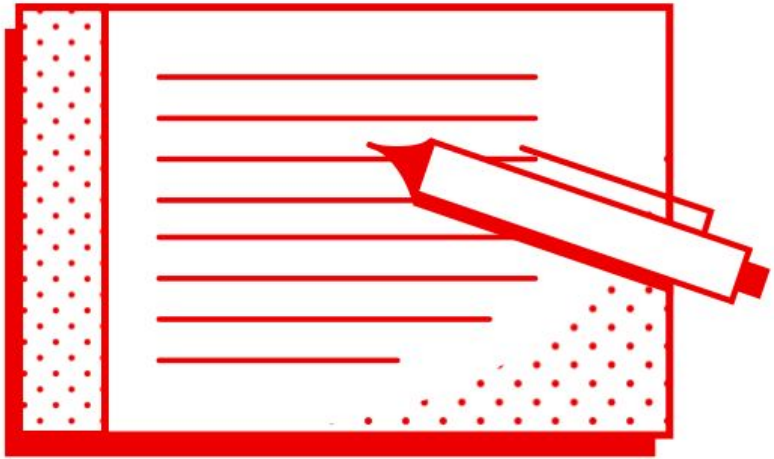
Consideration of project's overall life cycle and ecosystem

Our goals for this section

- **Define** a "healthy" open source project.
- **Explore** key considerations you can make when determining the health of an open source project.



Defining project health



A healthy open source project is one that demonstrates open practices, uses open infrastructure, and cultivates an open culture with the goal of becoming more sustainable.

Source: Measuring open source project health

Dimensions of project health

1

Maturity

- Project life cycle
- Goals and roadmap
- Ecosystem

2

Leadership & Governance

- Governance
- Project leaders
- Release manager and process

3

Community Architecture

- Infrastructure
- Onboarding processes
- Internal communication

4

Audience & Awareness

- Target audience
- Outreach
- Awareness

Source: Measuring open source project health

Key considerations

1

Maturity

Project life cycle

Understanding the project's place in that life cycle will help you contextualize your assessment. Monitoring contributor trends might reveal critical information about a project's short-term or long-term future.

When was the project founded, and how old is it?

How often do new contributors join the project?

How frequently does the project accept new contributions?

Source: Measuring open source project health
"Understanding the open souce software life cycle"

Goals and roadmap

Healthy open source projects have publicly shared goals and clear processes for reaching those goals. Goals are attainable and clear deadlines exist for tracking progress toward those goals.

Are project goals clear and public?

Does the project have a clearly communicated process, and is it also public?

Do project participants have a history of meeting project deadlines?

Source: Measuring open source project health

Ecosystem

Projects frequently depend on one another. In some cases, similar projects can be competing to reach the same target audiences. A community's interactions with other projects in its ecosystem reflect the project's health.

What are the project's dependencies and what projects depend on it?

Is the community sufficiently integrated into the overall project ecosystem, target industry, and organizations that may use the project?

Do members of that ecosystem view this project favorably?

Source: Measuring open source project health

2

Leadership & Governance

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Governance

Healthy software projects entail thoroughly documented (and continuously evolving) governance models.

What is the project's governance model, and is it publicly documented?

Does the model account for both technical and business concerns?

How do project members make and enforce decisions?

Source: Measuring open source project health
"A guide to open source project governance models"

Project leaders

In healthy projects, leaders are visible and easily identifiable. Leaders often coordinate project work and establish a project's vision, and usually have extensive knowledge of project history.

Who are the project leaders and what are their motivations and intentions for maintaining the project?

What are the project leaders' responsibilities, and are they focused more on engineering, marketing, or some combination of both?

Source: Measuring open source project health

Release manager and process

In healthy projects, members have formally documented release processes and identified release managers to supervise those processes.

Is the project's release process documented?

Does the project have an identified release manager?

How often do project release updates occur?

Do project releases occur on a steady and predictable schedule?

Source: Measuring open source project health

3

Community Architecture

Red Hat

Infrastructure

The most successful projects are those that have the tools they need to do their work—and keep those tools in good working order.

Does the project have the necessary infrastructure?

Are infrastructural deficits producing bottlenecks for the project?

Who is responsible for maintaining project infrastructure?

Is the project missing useful infrastructural components, and if so, does the community plan to obtain these components?

Source: Measuring open source project health

Onboarding processes

New contributors are vital to project innovation and success. Healthy projects feature clear, welcoming onboarding materials that assist newcomers who wish to participate in the project.

Does documentation explain precisely what the project is and how to use it?

Does documentation help new contributors get involved in the project?

Does the project accept contributions of more than one type (e.g., development, marketing, project management, event planning)?

Source: Measuring open source project health

Internal communication

Issues affecting community health often emerge first in internal channels—such as mailing lists or chat platforms—where contributors and users interact.

Does the project have sufficient communication channels?

Can people find and use these channels effectively?

Are project communications and internal decision-making conversations public and transparent?

Do project members regularly respond to/engage with users in these channels?

Are channels regularly moderated?

Is channel communication governed by a code of conduct?

Source: Measuring open source project health

4

Awareness & Audience

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~~Target~~ Intended audience

Well-run open source projects demonstrate a clear understanding of the users (and contributors) they hope to assist and engage.

Has the project clearly identified a target audience, and who is it?

Is the target audience the most appropriate one for this project?

Can the target audience adequately use, build, and contribute to the project?

Does the target audience engage with competing or complementary projects?

Source: Measuring open source project health

Outreach

Outreach is the process of actively promoting a project and making others aware of it. Healthy projects have adequate energy and resources devoted to outreach.

Does the community use clear and consistent methods for outreach? If not, does it plan to establish a set of outreach methods?

Are people writing, talking about, and promoting this project and its technologies?

Source: Measuring open source project health

Awareness

The project's target audience must be aware of the project and understand the problems it solves.

Is the target audience aware of the project?

Can people in the target audience explain the project's uses, features, and advantages over alternatives?

Do others working in an industry that would benefit from the project know the project exists?

Source: Measuring open source project health

Let's review.

Review

1

Maturity

- Project life cycle
- Goals and roadmap
- Ecosystem

2

Leadership & Governance

- Governance
- Project leaders
- Release manager and process

3

Community Architecture

- Infrastructure
- Onboarding processes
- Internal communication

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Audience & Awareness

- Target audience
- Outreach
- Awareness

A healthy open source project is one that demonstrates open **practices**, uses open **infrastructure**, and cultivates an open **culture** with the goal of becoming more sustainable.

Source: Measuring open source project health

Thanks.


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