

User-Led Open Source Consortia



Prof. Dr. Dirk Riehle, M.B.A.

Univ. Erlangen / Bayave GmbH

ISAFOSS-TIEDE - 2022-02-14

Licensed under [CC BY 4.0 International](https://creativecommons.org/licenses/by/4.0/)

What's Wrong With Closed Source Software?



The consequences of (strong) **vendor lock-in**

1. Costs / fee increases
2. Innovation blockage
3. Operational risk

And many more

Open Source Software

Open source software is

- Software given to you under an open source license

An **open source license** is

- A software license that grants you the right to
 - **Use,**
 - **Modify, and**
 - **Distribute (modified or not) the software free-of-charge**

This is the legal (license) definition [1]



[1] <https://opensource.org/osd>

Community vs. Vendor-Owned Open Source Software

Community open source software is open source software that

- Has an open governance process
- Is competitively non-differentiating
- Is communally owned (shared copyright)

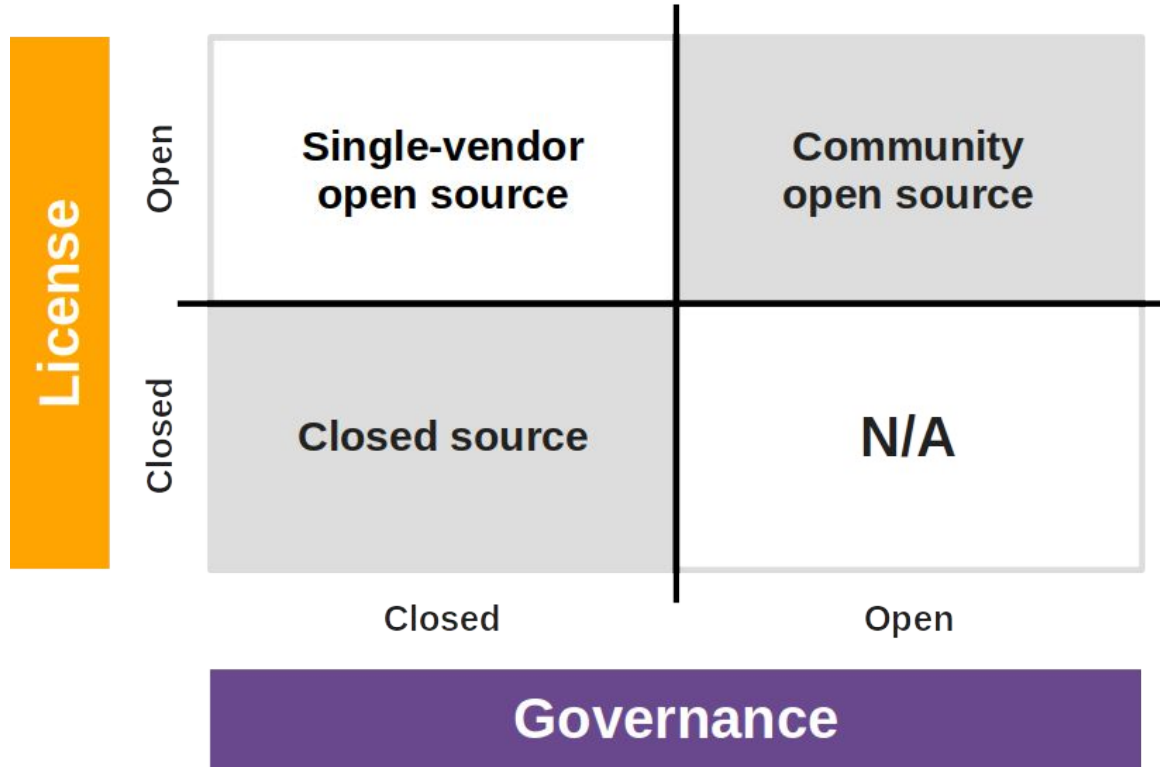


Single-vendor open source software is open source software that

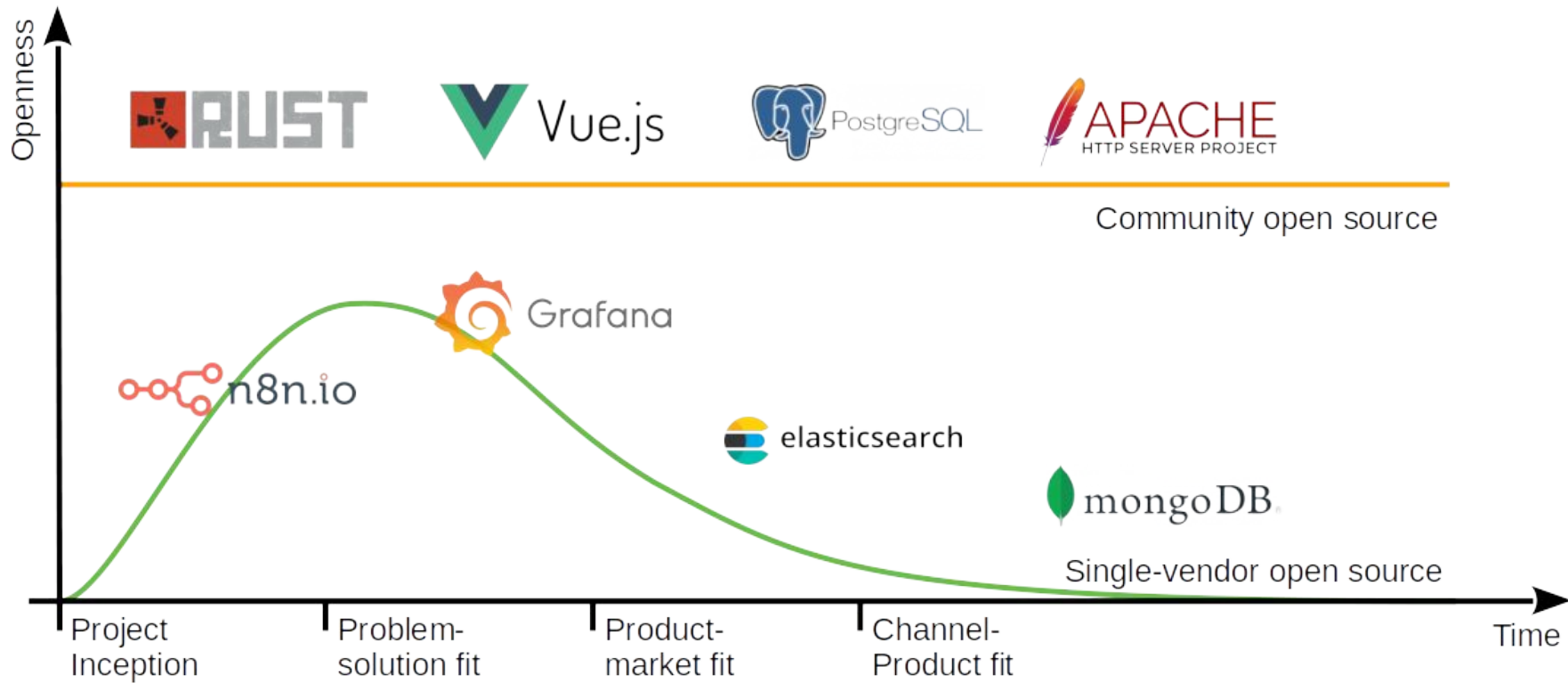
- Has a closed governance process
- Is exploited by a single vendor
- Is owned by that single vendor



Open Source License vs. Governance



Openness Over Time



Open Source Foundations

An open source foundation is

- A **non-profit** organization (foundation, consortium) [1]
- With the mission of **managing** / sponsoring / developing the development of
- **Competitively non-differentiating software**
- Made available to the public as **open source software**

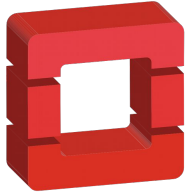
The three classic open source foundations



Benefits of an Open Source Foundation

A (well-designed) open source foundation provides

- A fair and equal playing field for its members
- With clear governance and intellectual property rules



Components For Use in Products

Needed by **product vendors**

commons
[Math]TM

 React

 4diac

Also **developed** by these vendors

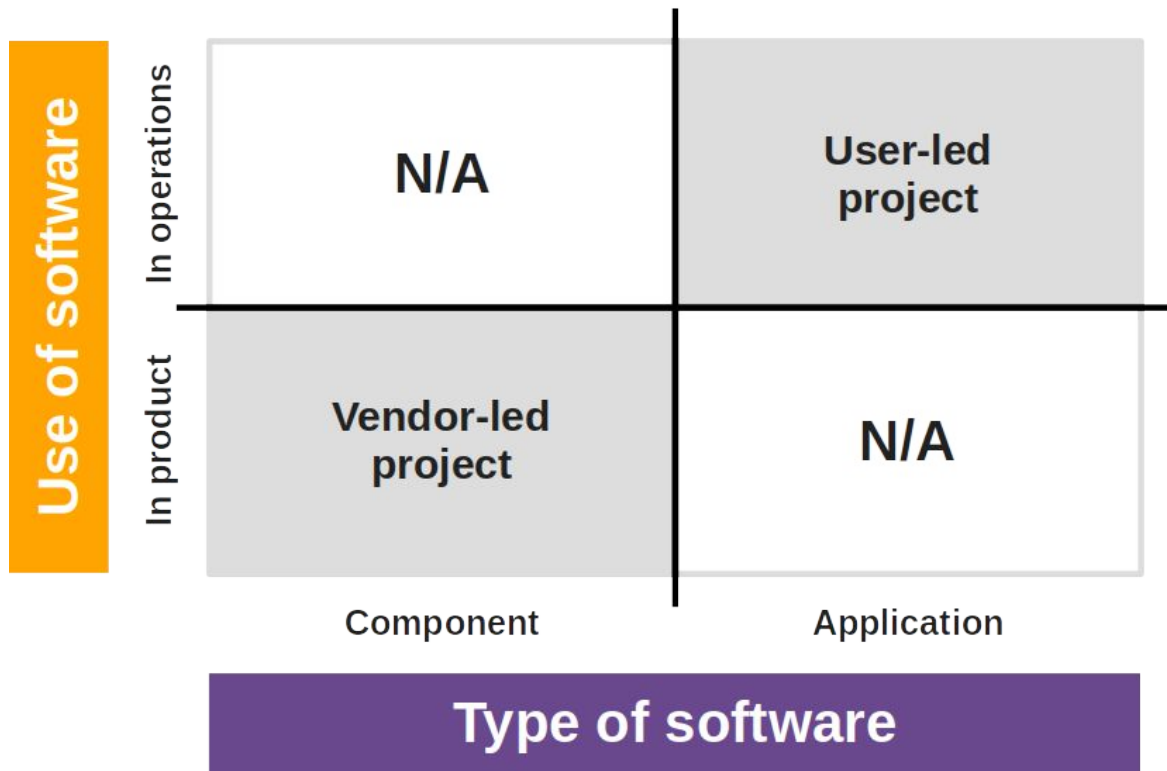
Applications For Use in Business Operations

Needed by **everyone** (in the business domain)



Sometimes developed, more often **sponsored** by using businesses

Vendor-led vs. User-led Open Source Projects [1]



[1] Open source project = open source software + the project community

User-Led Open Source Consortia



A **user-led** open source consortium is

- An open source foundation / consortium
- **Led by users**
 - **Who manage** the development of
 - **The software** they need to run their business

Implied is that the software is

- open source
- competitively non-differentiating

Development may be sponsored or co-developed

Example 1: openKONSEQUENZ (Energy)

openKONSEQUENZ is

- A German **cooperative**
- **Managing and sponsoring** the development of open source software
- For local energy distributors and the smart grid

Driver members are the local energy distributors



Open source projects are individual modules led by one driver member

Example 2: openMDM (Automotive)

openMDM is

- A **working group of the Eclipse Foundation**
- **Managing and sponsoring** the development of open source software for
- Measured data management
- Mostly for automotive production lines

Driver members are the automotive OEMs



Example 3: Academy Software Foundation (Movies)

The Academy Software Foundation is

- A **Linux Foundation collaboration project**
- **Adopting**, managing, and sponsoring open source
- For the production of movies

Premier members are both movie studios and vendors



...

Open source projects may get their own series LLC instance

More Examples of User-Led Projects and Consortia



Who Can Both Lead and Collaborate?



Organizations who are not competing with each other

- Businesses from different domains
- Legally / geographically disjunct businesses from same industry
- Governmental organizations
- Countries

Competing organizations as long as

- The software is not competitively differentiating

Governance



General governance

- **Tiered membership** levels
- Declared in bylaws

Project communities

- The **project knows best**
- Defined in charter

Cost vs. Flexibility



Financing



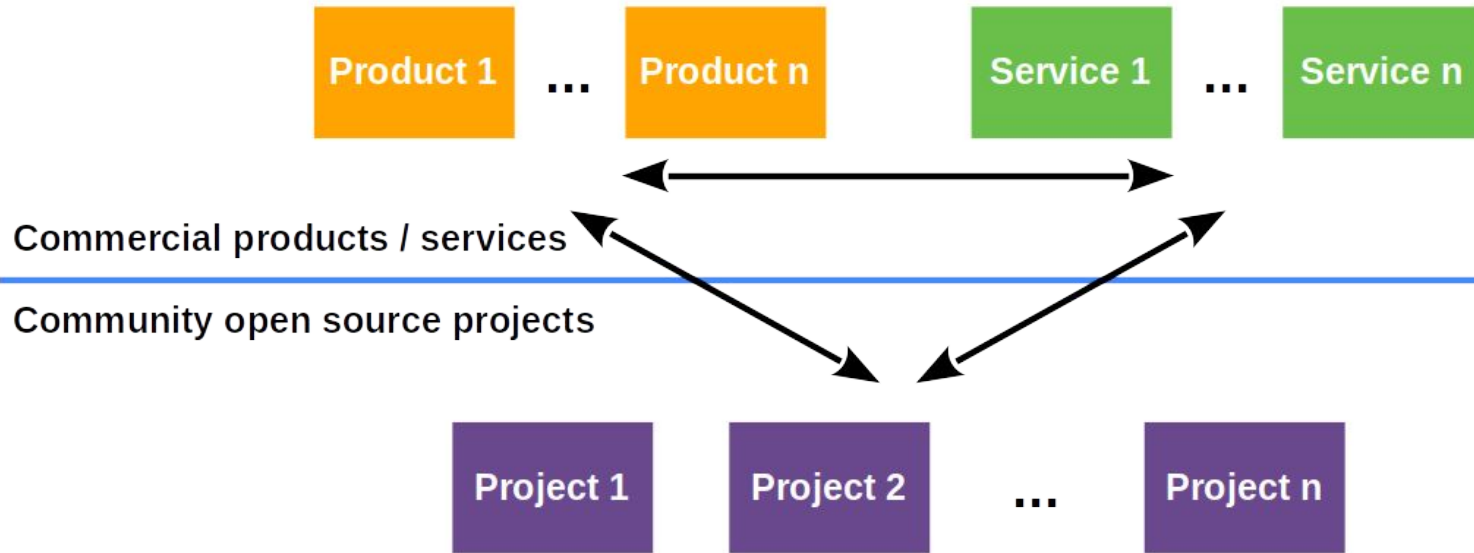
General operations

- Through (tiered) **membership fees**

Development

- **Co-development** and/or **sponsorship**
- On a **project base** or **in general**


Two-Tiered Ecosystem



How to Make Money with Open Source?

	Open Source	Complement
Hardware	Google Tensorflow	Google's Tensor Processing Units
Software	Apache Lucene	Elastic's Enterprise Search
Operations	PostgreSQL	Credativ PostgreSQL operations
Consulting	Wordpress	Web Design Berlin
Support	gcc	Clever Solutions

Open Source and Lock-in



Complement	Lock-in	Lock-in Base
Hardware	High	(Exclusively owned) intellectual property
Software	High	(Exclusively owned) intellectual property
Operations	Medium	Mixed (IP, Capital, Position)
Consulting	Low	Knowledge
Support	Low	Knowledge

Combating Vendor Lock-in (All Over Again)



Avoiding lock-in through intellectual property

- Use of copyleft license
 - Prevents use of exclusion right
- Downside of using copyleft licenses
 - Keeps potentially relevant vendors away

Avoiding lock-in through knowledge

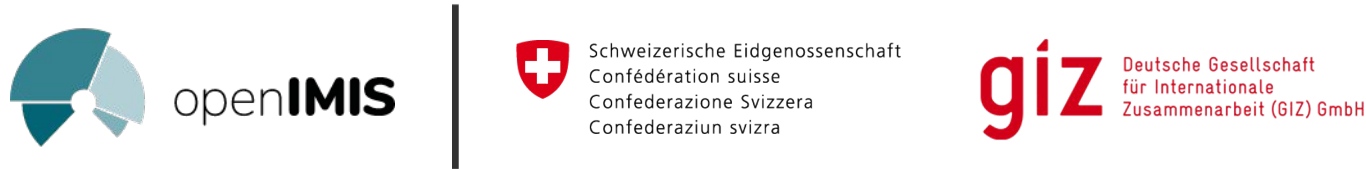
- Spread out use of services
 - Avoid accumulation of knowledge with one provider
- Have plan for migration and act on it
 - Requires discipline

What's Needed? Where to Invest?

An example of a long way to sustainability



Long-term support for relevant but neglected projects



Or identify relevant domains and start your own

Thank You! Any Questions?



Prof. Dr. Dirk Riehle, M.B.A.

dirk.riehle@fau.de, <https://oss.cs.fau.de>

dirk.riehle@bayave.com, <https://bayave.com>

dirk@riehle.org, <https://dirkriehle.com>

Twitter: [@dirkriehle](https://twitter.com/dirkriehle)

Legal Notices



License

- Licensed under the [CC BY 4.0 International](https://creativecommons.org/licenses/by/4.0/) license

Copyright

- © Copyright 2022 Dirk Riehle, some rights reserved