

Open Source: an opportunity for Europe

Open Source projects offer a compelling model for sharing software and fostering collaboration. Europe has both the opportunity and the necessity to invest in initiatives related to Open Source development. **Such investments can enhance the European software ecosystem, drive innovation, and lead to significant economic and technological benefits.**

What is Open Source?

Open Source means that the source code of a library or application is freely available for use, modification, and distribution. While users can utilize the software as they see fit, there are different licenses that preserve the author's rights and outline specific obligations. These licenses help maintain a balance between freedom of use and intellectual property protection.

Benefits of Open Source

Open Source projects allow companies that develop or use software to share common libraries, fostering collaboration and reducing redundancy. Instead of multiple companies independently developing libraries that solve the same problem, they can contribute to a single Open Source project. This collaborative approach:

- **Saves Resources:** Reduces the need for duplicate development efforts.
- **Accelerates Innovation:** Combines expertise from various sources to enhance the quality and functionality of the software.
- **Enhances Customization:** Allows companies to build adapters around the shared library to better fit their specific platforms.

Maintainers

While Open Source projects are often shared among many contributors, managing their development can be challenging. To address this, **I propose that Europe funds deserving Open Source projects, enabling maintainers to be hired to oversee them.** The maintainers' responsibilities would include:

- **Improving the Library:** Acting on instructions and requests from European companies, tracked through issues or tickets.
- **Proposing Use Cases:** Identifying new applications and opportunities for the library.
- **Updating Documentation:** Ensuring that all documentation is current and accessible.

Funding Mechanism

Inspired by Spotify's method of compensating creators, **Open Source projects should receive funds based on the level of engagement from European companies.** Two possible approaches are:

1. **Issue-Based Funding:** Projects receive funds proportional to the number of issues opened by European companies.
2. **Voting System:** Companies have votes proportional to their number of employees or other metrics. They can vote for the projects or issues they want to be solved.

Why Is This a Good Idea?

- **Alignment with Demand:** Funding is directed toward projects and issues that are most relevant to the needs of European companies.
- **Fair Resource Allocation:** Companies with greater usage and reliance on Open Source projects have a proportionate influence on funding decisions.
- **Incentivizes Quality and Responsiveness:** Maintainers are motivated to address the most pressing issues, improving overall software quality.

How are the usage data obtained?

Most Open Source projects are hosted on GitHub, an online platform for storing and sharing code. By collaborating with GitHub, Europe could obtain the necessary data to distribute funds effectively among projects. However, developing a European platform to manage these projects may offer additional benefits:

- **Data Efficiency:** A dedicated platform would allow for more effective and efficient data collection.
- **Intellectual Property Protection:** Ensures that software is available for research while preserving the intellectual property rights of European contributors.
- **Autonomy:** Reduces reliance on a private company (GitHub is owned by Microsoft) that may have conflicting interests.

How can the funds be used?

Since Europe would be investing in these projects, it has the right to establish clear and definitive license agreements. Funds could be used to:

- **Provide Salaries:** Compensate maintainers who reside in Europe.
- **Cover Management Expenses:** Support other costs related to project management on a monthly basis.
- **Implement Time-Limited Funding:** Unspent funds after a certain period are revoked, ensuring efficient use.
- **Performance-Based Compensation:** Alternatively, maintainers could be paid based on the number of resolved issues.

I have virtually no experience in this field, therefore you can come up with better and more detailed ideas.

Preventing Monopolies in Open Source Projects

There is a risk that European companies might dominate the development of Open Source projects they fund, similar to how global companies like Google, Meta, or Microsoft influence Open Source projects to meet their needs. To prevent this:

- **Develop a Robust Voting System:** Create a transparent and fair system that balances the interests of all stakeholders.
- **Ensure Diverse Representation:** Include input from small and medium-sized enterprises, public entities, and individual contributors.
- **Set Governance Policies:** Establish rules that prevent any single entity from having disproportionate control over a project's direction.

Conclusion

Investing in Open Source is in Europe's best interest. Such an initiative benefits not just companies but also public entities, foundations, private citizens, and any organization that uses software. By strengthening the European software ecosystem, Europe can:

- **Enhance IT Infrastructure:** Build a more robust and secure technological foundation.
- **Foster Tech Culture:** Encourage innovation and collaboration across the continent.
- **Optimize Resource Allocation:** Save money and developer time, allowing focus on creating innovative products rather than redundant libraries.


In summary, a strategic investment in Open Source projects can drive significant advancements in Europe's technological capabilities, benefiting the entire society. Finally, I want to point out that other countries are already investing in this field, for example, Switzerland requires all government software to be Open Source¹.

Carlo Rosso

 <https://danesinoo.github.io/>

 <https://www.linkedin.com/in/carlo-rosso-bb8b1820a/>

 <https://github.com/danesinoo>

 carlorosso02@gmail.com

¹https://www.bk.admin.ch/bk/en/home/digitale-transformation-ikt-lenkung/bundesarchitektur/open_source_software.html#