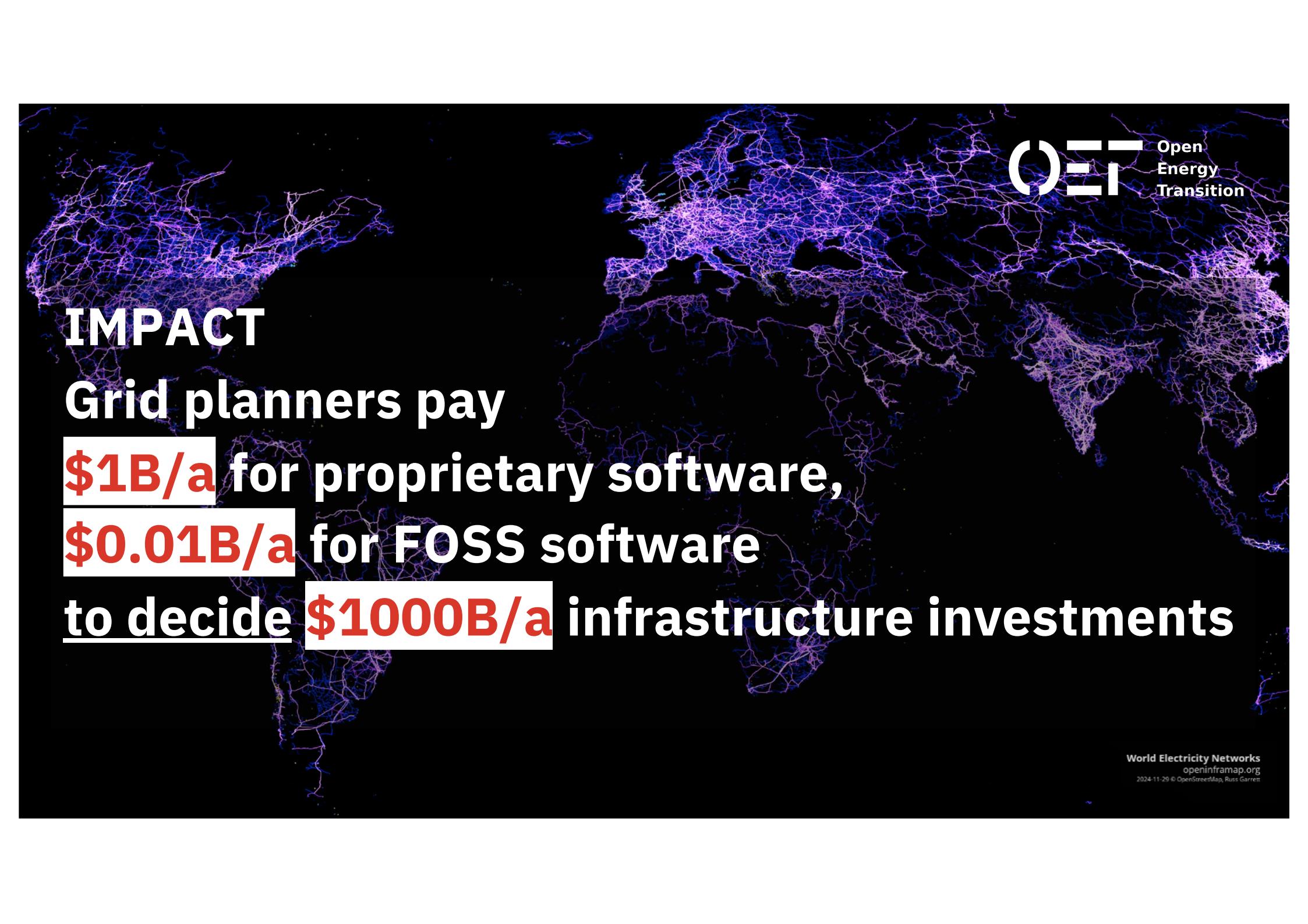




# Funding a FOSS Revolution in the Energy Sector

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Dr. Maximilian Parzen, 31 January 2026

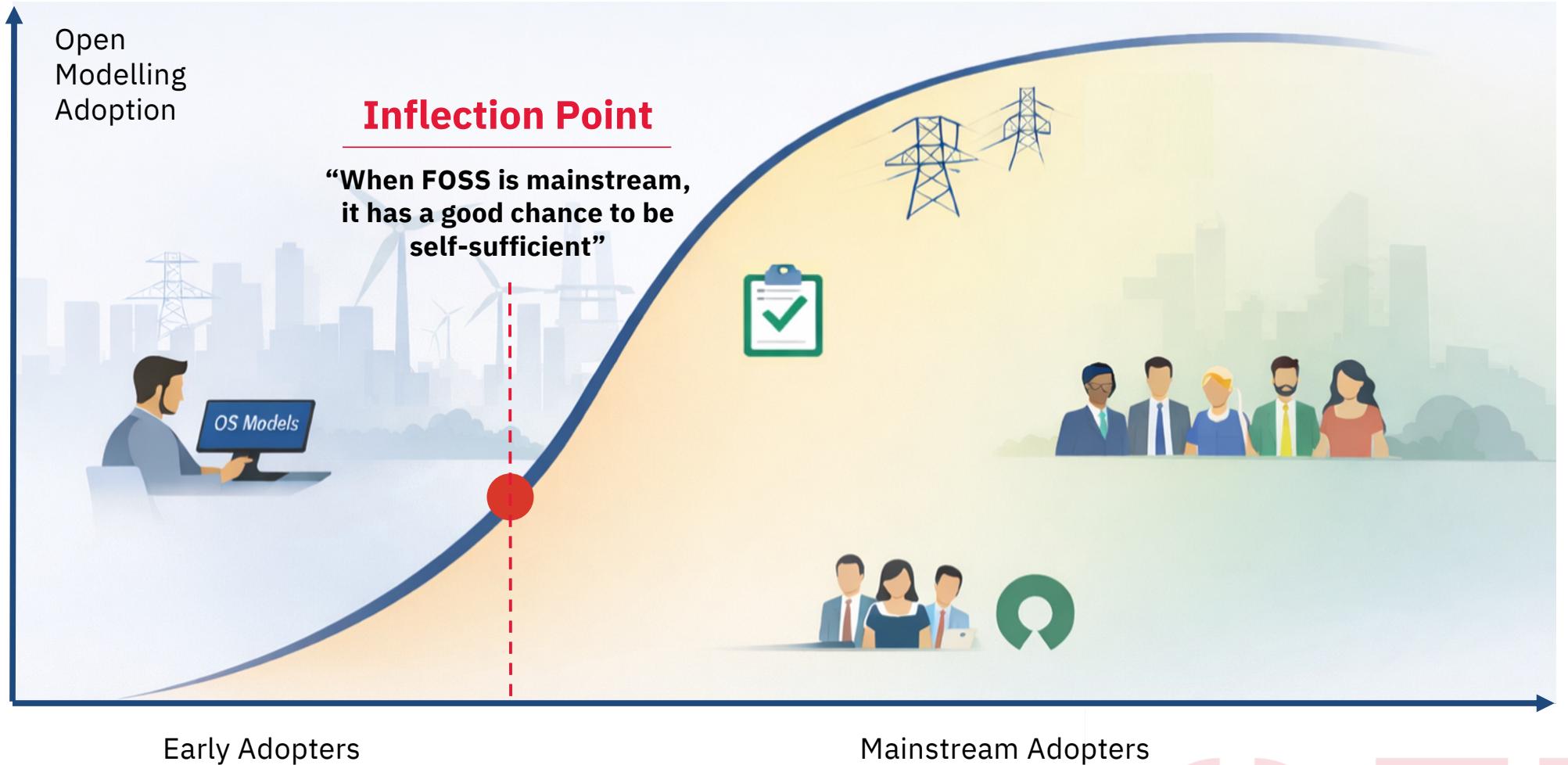


**IMPACT**  
Grid planners pay  
**\$1B/a** for proprietary software,  
**\$0.01B/a** for FOSS software  
to decide **\$1000B/a** infrastructure investments

## STATUS QUO

- Urgent digital sovereignty need for grids
- FOSS tools are useful, but can mature
- FOSS ecosystem needs **growth** (demand/supply)

= FOSS REVOLUTION NEEDED



## A well funded ecosystem helps with FOSS longevity

= more developers and maintainers contributing  
to the “foundation”

Industry adoption/  
funding

Public/ Philanthropic  
support

Research  
adoption/ funding

**How to get more private, public,  
philanthropic funding to catalyse  
a *FOSS revolution?***

**Spot the opportunity & know how to get FOSS adopted.**

Where?

- Existing software market
- \$\$\$ being spent for proprietary software
- FOSS features like better accessibility, collab, innovation would help

How?

- Refine value proposition
- Test market awareness and confidence
- **Grow FOSS ecosystem**



**Reduce noise & help funders to allocate \$\$\$ better**

Important success signals that are good to measure:

- Ecosystem growth (numbers of downloads, contributors, dependency)
- High impact users (references in studies/ application to tech?)
- Benchmark of technical capability



## Open Energy Modelling Tools - Key Metrics

Last Update: 2026-01-09

Tools in view (filtered on subset of: [Language](#))

Find a tool by name

191 / 210

Tool Name	Docs	6 Month Interactions	Created	Updated	Stars	Contributors	DDS	Forks	Dependents	+ 1 Month Downloads	Category	Language	License Type
Pandapower	1		2017-01-12	2025-12-18	1,075	156	84%	538	75	117,809	<a href="#">power-flow</a>	python	unknown
PyPSA	1		2016-01-11	2025-11-06	1,710	92	80%	576	32	47,307	<a href="#">capacity-expansion</a> <a href="#">production-cost</a>	python	permissive
PYPOWER	1		2009-05-22	2025-07-10	378	21	31%	125	11	46,095	<a href="#">power-flow</a>	python	unknown
oemof-solph	1		2015-11-24	2025-12-19	364	72	70%	143	23	27,450	<a href="#">capacity-expansion</a> <a href="#">production-cost</a>	python	permissive
HOPP	1		2019-11-04	2025-12-11	34	34	78%	64	1	17,071	<a href="#">capacity-expansion</a> <a href="#">production-cost</a>	python	permissive
Egret	None		2019-01-28	2025-11-03	146	33	67%	63	4	10,414	<a href="#">production-cost</a> <a href="#">power-flow</a>	python	unknown
PowerSyBil	1		2019-05-09	2025-10-10	16	1	8,344	<a href="#">power-flow</a>	java	copyleft			
Grid2Op	1		2019-10-10	2025-11-20	400	31	31%	136	16	6,869	<a href="#">power-flow</a>	python	copyleft
garden	1		2020-01-01	2025-06-23	1,754	None	python	permissive					

**Example [openmod-tracker.org](https://openmod-tracker.org)**  
 200+ OS tools for grid planning!  
 Insight platform guides decision-makers

Code refs at: <https://github.com/open-energy-transition/openmod-tracker/>

You can create your own tool scores by combining the metrics that matter most to you. First, toggle the scoring column. Then, adjust the weights applied to each numeric metric to fit your preferences.

Add score column to table

Metric scaling method [?](#)

rank

Stars

0.5

- +

Contributors

0.5

DDS

0.5

Forks

0.5

Dependents

0.5

1 Month Downloads

0.5

- +

## Key Takeaways from the Data

- Adoption Signals Matter:** High download counts, active contributors, and ongoing issue resolutions suggest healthy, well-maintained projects. However, source code activity alone can be misleading — some highly starred projects have stalled development and some with limited source code development are in heavy use in supporting planning decisions.
- Sustainability Risks:** Projects with fewer than 10 contributors face a higher risk of abandonment. A committed and broad contributor base can be hard to come by and may need to be cultivated with financial support rather than relying

## **Work, Work, Work on Success Signals**

- **Train ecosystem** (incl competitors)
- **Help adoption** of high impact early adopters
- **Support benchmark** quality (even when annoying)

## Our observations:

**Philanthropic** funding > catalyses revolution ➡

**Industry** funding > self-sufficiency ➡

**Public** funding > any, but usually late ⏳

What's your take and experience?

# Thank You!



**Dr. Maximilian Parzen**

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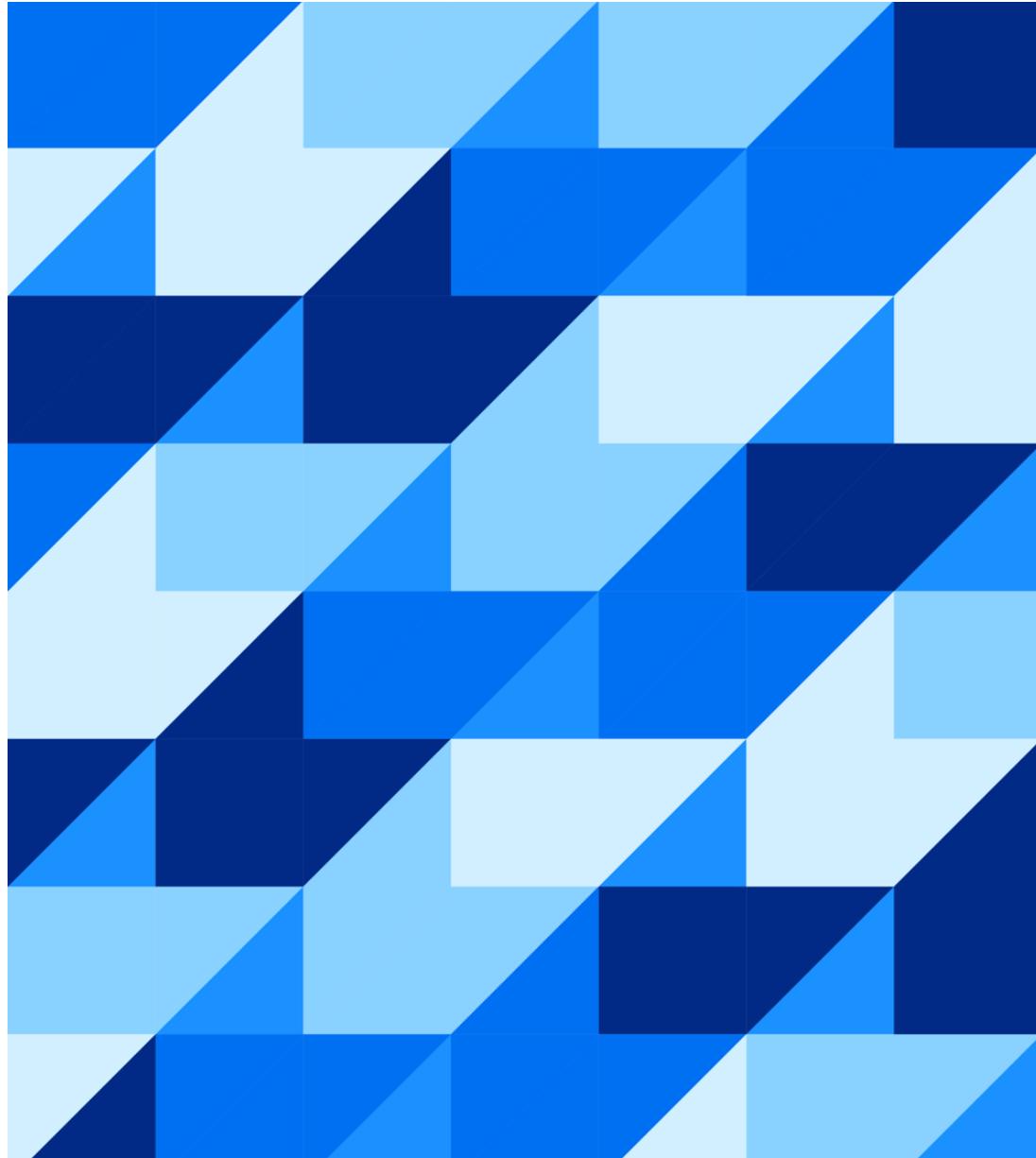


# An Enterprise Perspective on Open Source Funding

Fabian Palmer & Tobias Gabriel, SAP  
31<sup>st</sup> January 2026

PUBLIC

 FOSDEM



## Who is SAP?

- The World's Largest Provider of Enterprise Application Software
- Headquarters: Walldorf, Germany; Founded: April 1, 1972
- 110,730 employees worldwide; R&D headcount (FTEs): 37,909
- >100 solutions for all lines of business (LoB) as well as software suites

**Thousands of open source components and projects are used within SAP solutions, internal development and operations.**

# **How to engage with Open Source?**

## **Open Source is diverse**

Flexible engagement is mandatory

	<b>Independent Projects</b>	<b>Foundation Project</b>	<b>Company Project</b>
Development Contributions	YES	YES	YES
Financial Contributions		Yes, via Memberships	Yes, via Support Contracts

## **Open Source is diverse**

Flexible engagement is mandatory

	<b>Independent Projects</b>	<b>Foundation Project</b>	<b>Company Project</b>
Development Contributions	YES	YES	YES
Financial Contributions	????	Yes, via Memberships	Yes, via Support Contracts

## Direct Open Source Funding

### One missing tool

- Sole maintainers and small projects could only be supported through development contributions. This is not always the best way.
- It would be great to support and appreciate their efforts as well financially.
- But: **How do you give money to individuals as a company?**
  - Intermediate is good to support purchasing process
  - Common ones are GitHub Sponsors or Open Collective
  - GitHub Sponsors can route money to Open Collective
  - Additionally ensure that recipients are not related to company or sanctioned
  - A fixed amount, meaningful amount is a good starting point
  - Pilot budget to fully explore processes end to end

# **How to select projects & maintainers?**

## How to select projects & maintainers?

### **Challenges:**

- Thousands of possible projects
- Different goals for funding in the future
  - Improving supply chain security?
  - Giving back to OSS community?

## Internal Voting

Developers vote for the projects they want to fund

Project nominations by teams from across SAP

- A separate team must support the nomination

Voting is only available to people with verified open-source contributions to any project

- Co-Investment from a central budget and code contributions

Advantages:

- high probability of identifying critical projects for a few products

Disadvantages:

- Will most likely return very well-known projects

## **Automated Selection**

### **Data-Driven project selection**

Metrics to characterize projects

Funding decisions based on metrics

- Importance of metrics based on current funding goal

Advantages:

- No inherent bias towards well known projects

Disadvantages:

- Is not a perfect science -> manual filtering is needed

# Automated Selection Metrics

## Internal usage

- “Easy”: Number of products that use the project
- Hard: Importance of project to products (-> Internal voting)

## Project activity

### OpenSSF Scorecard

- Security Score for project

### Truck/Bus-Factor

- “The minimal number of developers that have to be hit by a truck (or quit) before a project is incapacitated” [Avelino et al. 2016]
- Estimation with GINI-Index

etc.

# Thank you.

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Learn more at [opensource.sap.com](https://opensource.sap.com)  
See the entire list of OSS Projects receiving direct funding at [github.com/orgs/SAP/sponsoring](https://github.com/orgs/SAP/sponsoring)

Learn more about SAP Open Source in the yearly [open source reports](#)

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