# Towards a sustainable solution to open source sustainability

Tobie Langel, Principal, UnlockOpen

FOSDEM '19 Brussels 2 & 3 February 2019

# The Heartbleed Bug

# Heartbleed bug impact

## 👩🏽‍⚕️ 4.5 MILLION

The number of US patient records whose confidentiality was compromised.

## 💰 $500 MILLION

Estimated cost to the industry.

# Pivotal moment where tech industry realizes open source is:

## 🌏 UBIQUITOUS

2/3 of active sites on the Internet rely on the OpenSSL library.

## ⚠️ CRITICAL

OpenSSL encrypts private communications, bank transactions, medical records, etc.

## 💸 UNDERFUNDED

Only 1 full-time maintainer, shoestring budget ($2k/year).

# PATREON

## 🎨 FOCUS

Originally aimed at artists, musicians & writers.

## 🌊 GOAL

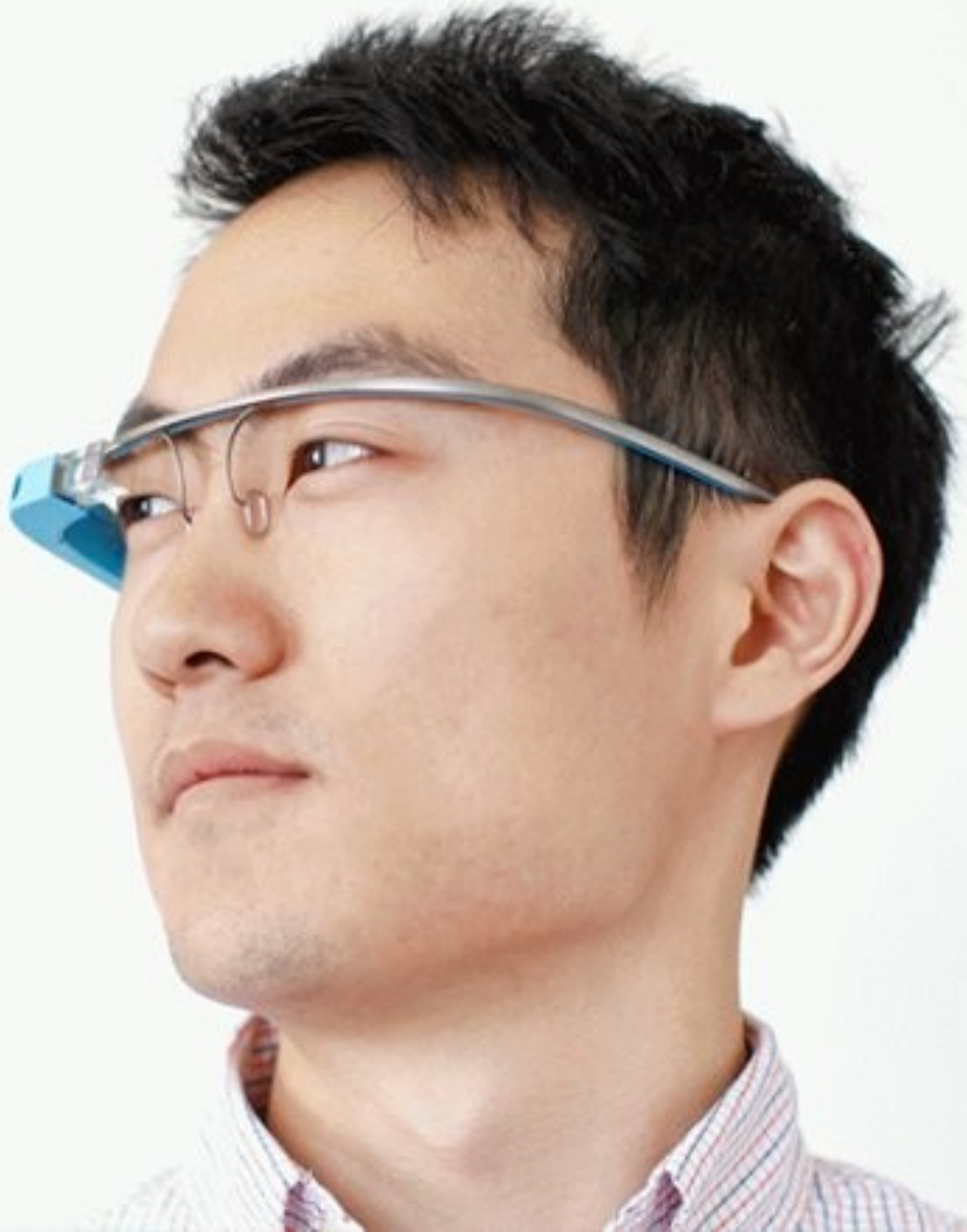
Create a “meaningful revenue stream.”

## 🏆 SUCCESS STORY

Evan You (pictured), creator of Vue.js. Nets over $17K per month.

## ❌ REPRODUCIBLE?

Not really. Very few devs have a large enough revenue stream to work on OSS full-time.



GITCOIN

GITCOIN

## 🏪 GITHUB ISSUE MARKET

Allows project owners to add bounties to GitHub issues.
Devs submit their work as a pull request.

## 💰 $500,000

Amount of bounties paid on the platform in 2018.

## ⛓ BLOCKCHAIN-BASED

Developers received bounties in Ether.

## 🌳 WHOLE ECOSYSTEM

GitCoin also provides an ad network (CodeFund), and a Patreon-like solution (Grants).

CODEFUND

## 🕵🏾 CONTEXTUAL ADS

Advertise on the websites of open source projects.

## 💼 HIRING FOCUS

Dedicated solution for hiring developers.

## 💵 $6K PER MONTH

Redistributed to project maintainers out of $10K monthly revenue.

OSSC

open collective

## 🔍 WHAT DOES IT DO?

Provides non profit status (501c6) to open source projects & transparency as to how funds are used.

## 🏆 SUCCESS STORY

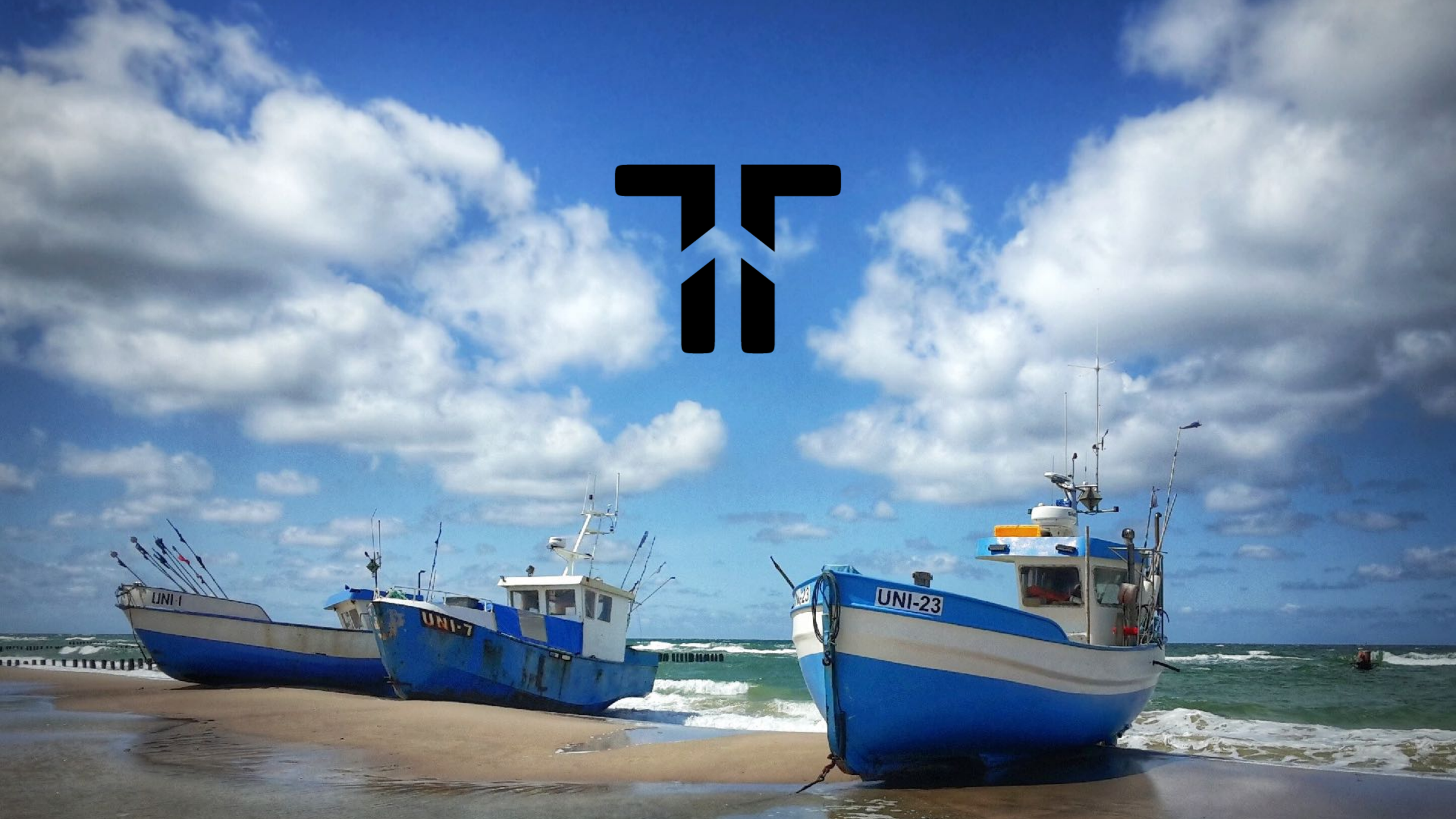
WebPack reached $400K+ yearly funding in 2018.
Win-win situation for key sponsor (trivago).

## 🐿 LONG TAIL PROBLEM

A few projects are getting most of the funding (>25% of total funds for WebPack in 2017).

+

backyourstack


UNI-1
UNI-7
UNI-23

# TIDELIFT

## 🛥️ WHAT IS IT?

Red Hat business model for the long tail.

## 🛎️ SERVICES

Provides security updates, maintenance, and legal assurances for all open source projects in an organization's stack.

## 👩🏾‍💻 HOW?

By paying the actual maintainers to do the work.

## 🏆 SUCCESS STORY

None yet. It's too early.

WARNING
AHEAD

# $100

DEMON OCRACY.INFO

# $10,000

Monthly revenue of CodeFun.

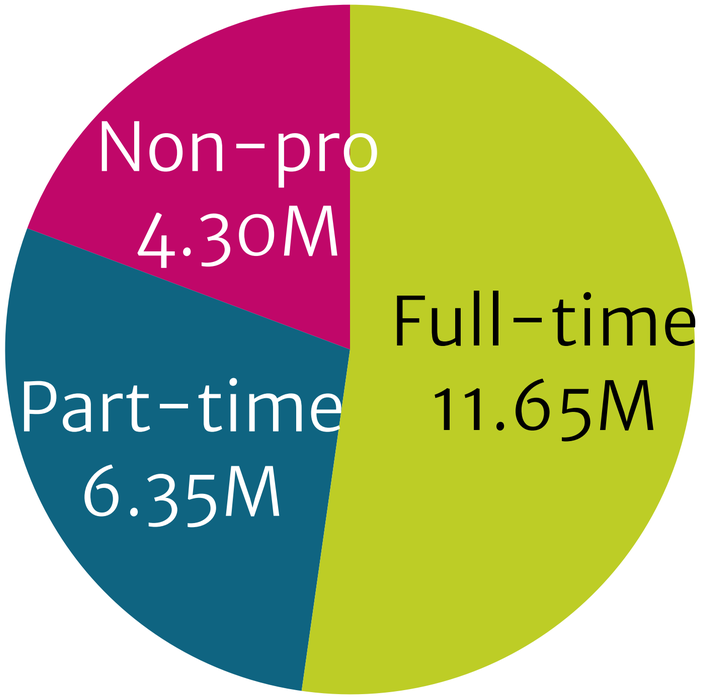
DEMONOCRACY.INFO

# 1 million dollars

- Amount collected by Open Collective in a year.
- Amount Tidelift committed to pay developers.

DEMON OCRACY.INFO

# Worldwide developer population




Quick back of the envelope math:

12M FT devs x $65K = $780B

+ 6M PT devs x $35K = $210B

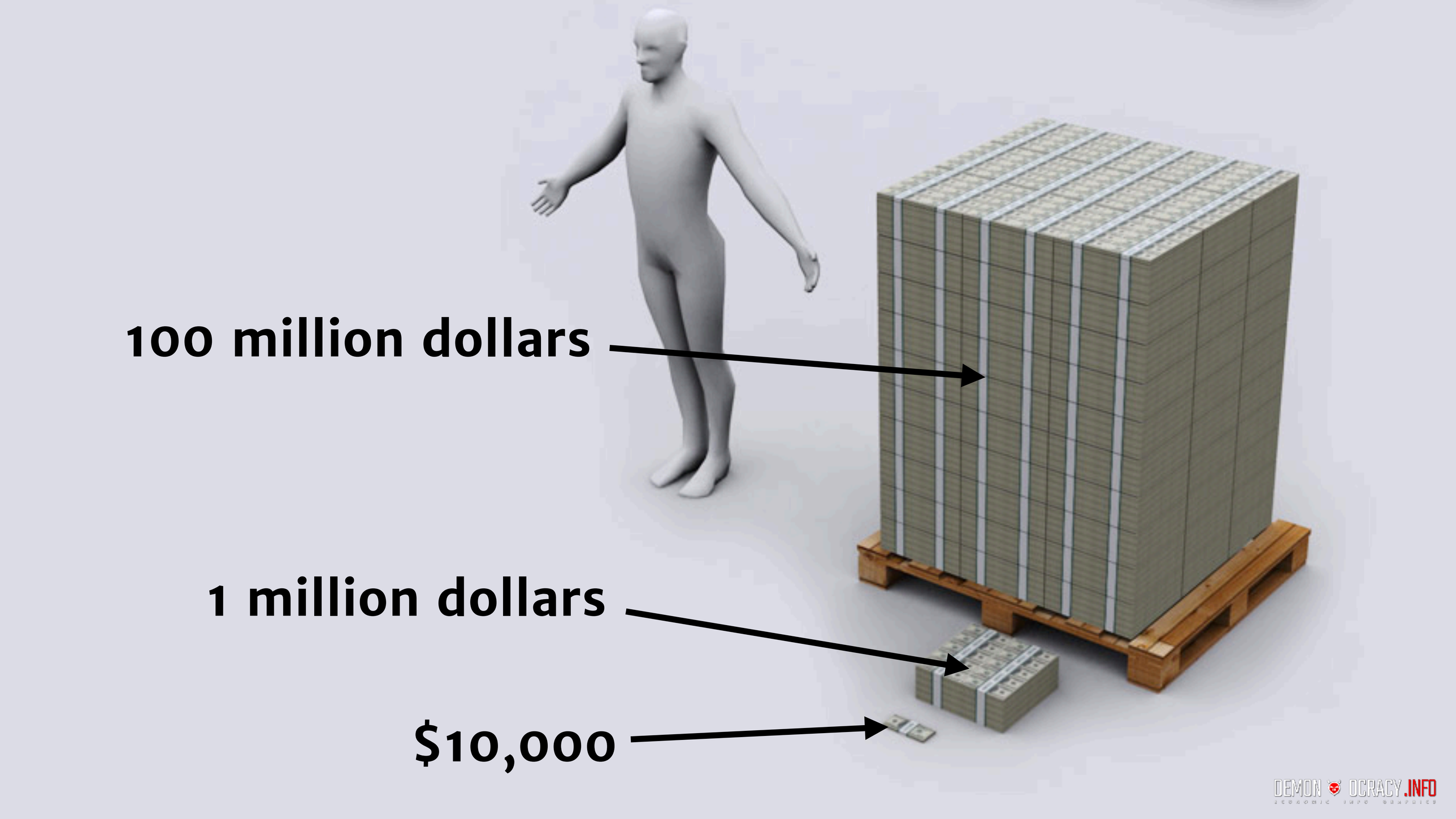
~= 1 trillion dollars

Source: IDC, Worldwide Developer Census, 2018.

# 1 million dollars

- Amount collected by Open Collective in a year.
- Amount Tidelift committed to pay developers.

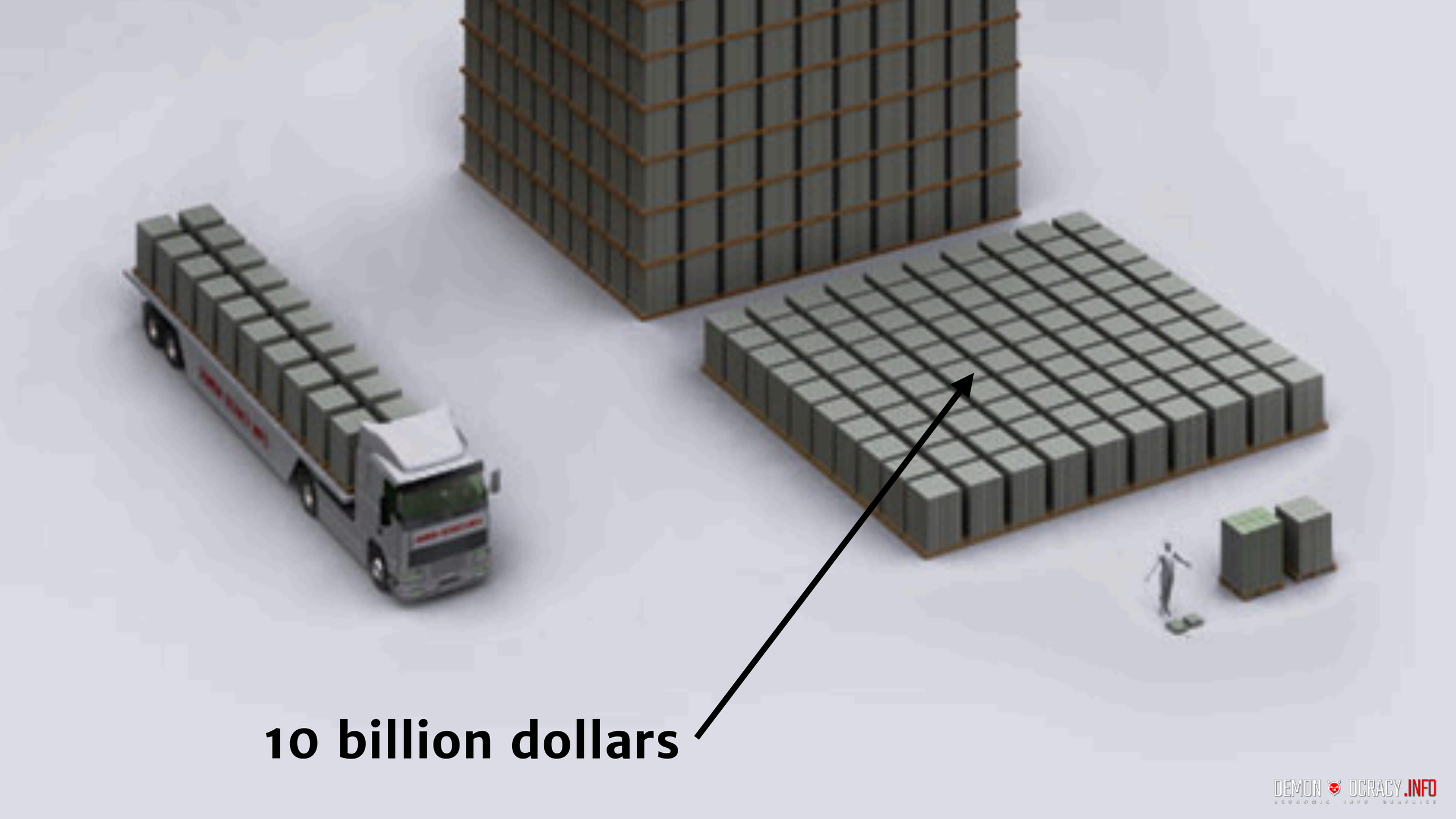
DEMON OCRACY.INFO



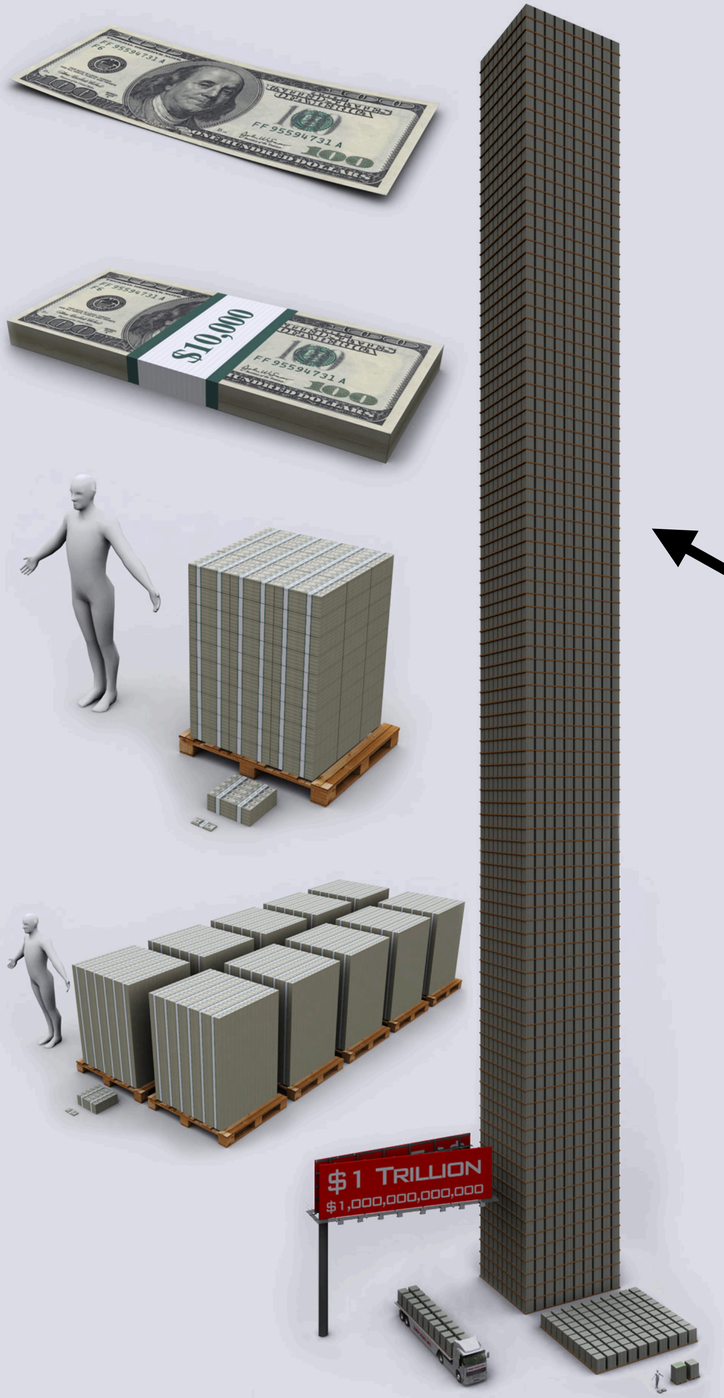

DEMONOCRACY.INFO

# 1 billion dollars

DEMON OCRACY.INFO
ECONOMIC INFO GRAPHICS

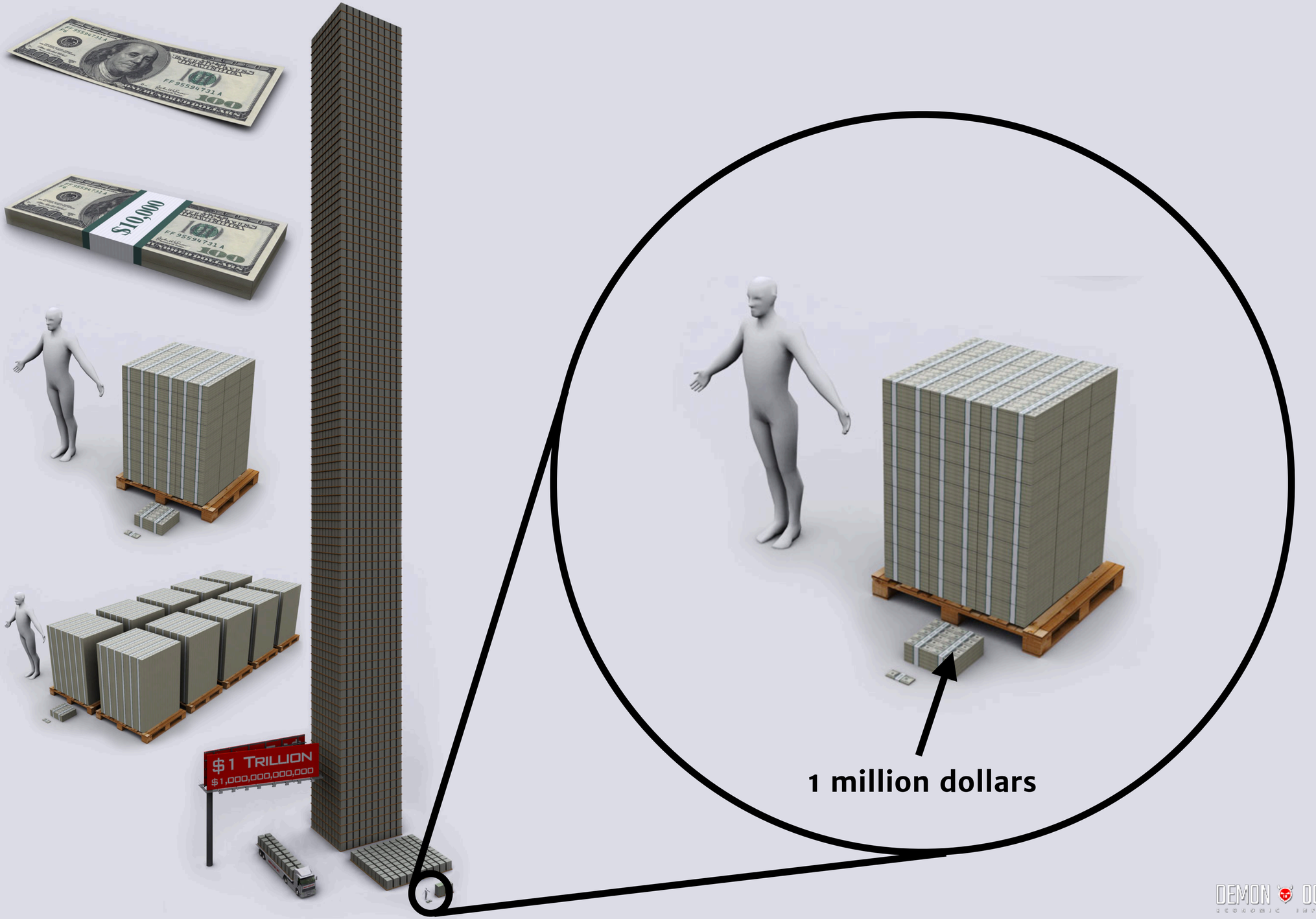



DEMON OCRACY.INFO




1 trillion dollars

DEMONOCRACY.INFO
ECONOMIC INFO GRAPHICS

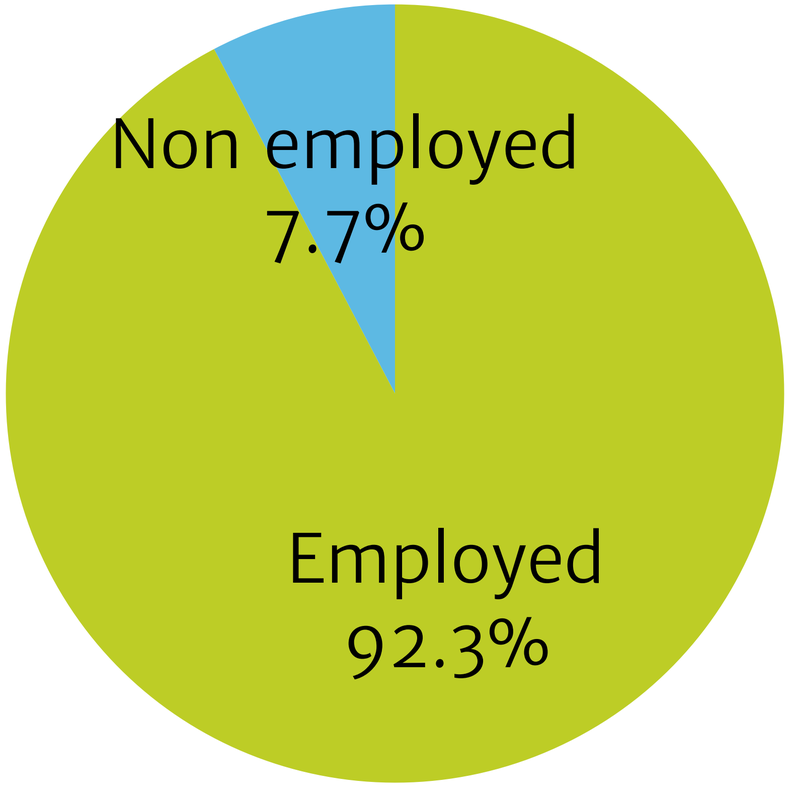



DEMONOCRACY.INFO

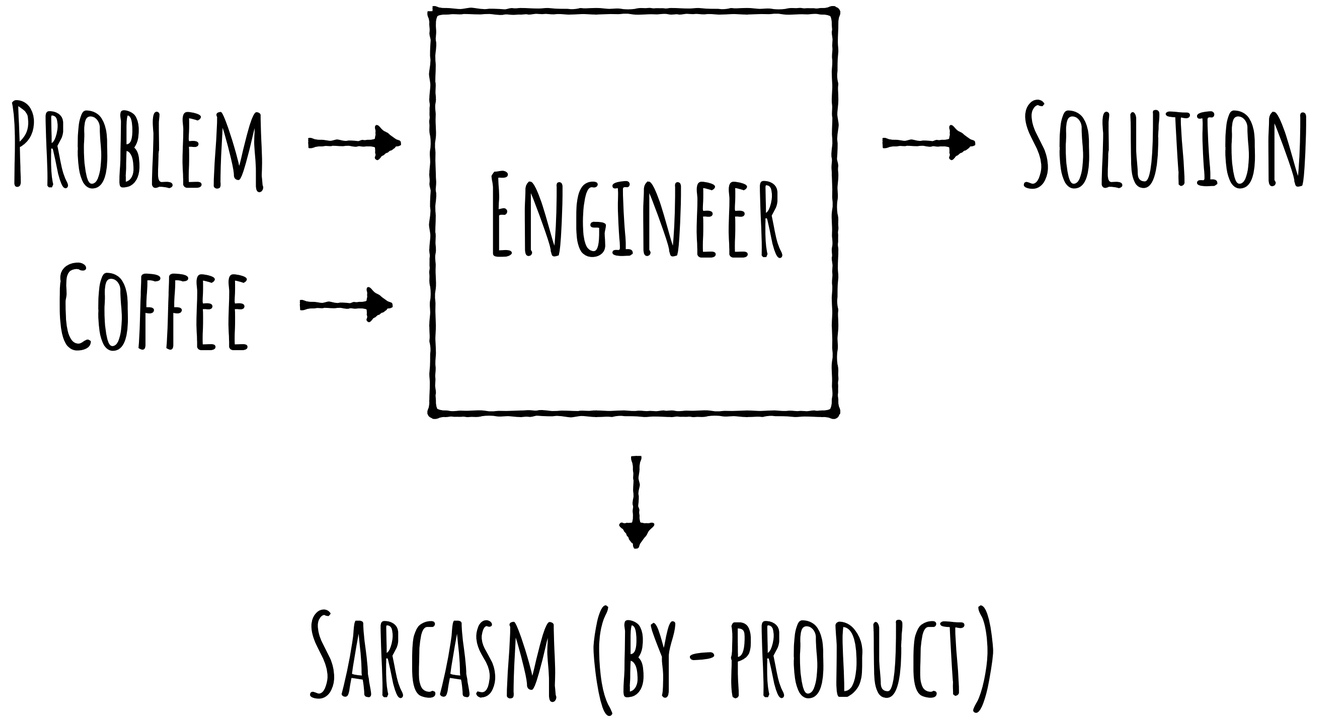
*“[P]art of the reason much of open source is so good, and often so superior to closed-source commercial projects, is the natural boundary of constraints. If you are not being paid or otherwise compensated directly for your work, you're less likely to needlessly embellish it. You're solving the problems for you and your mates, likely in the simplest way you could, so you can get back to whatever you originally intended to do before starting to shave the yak.”*

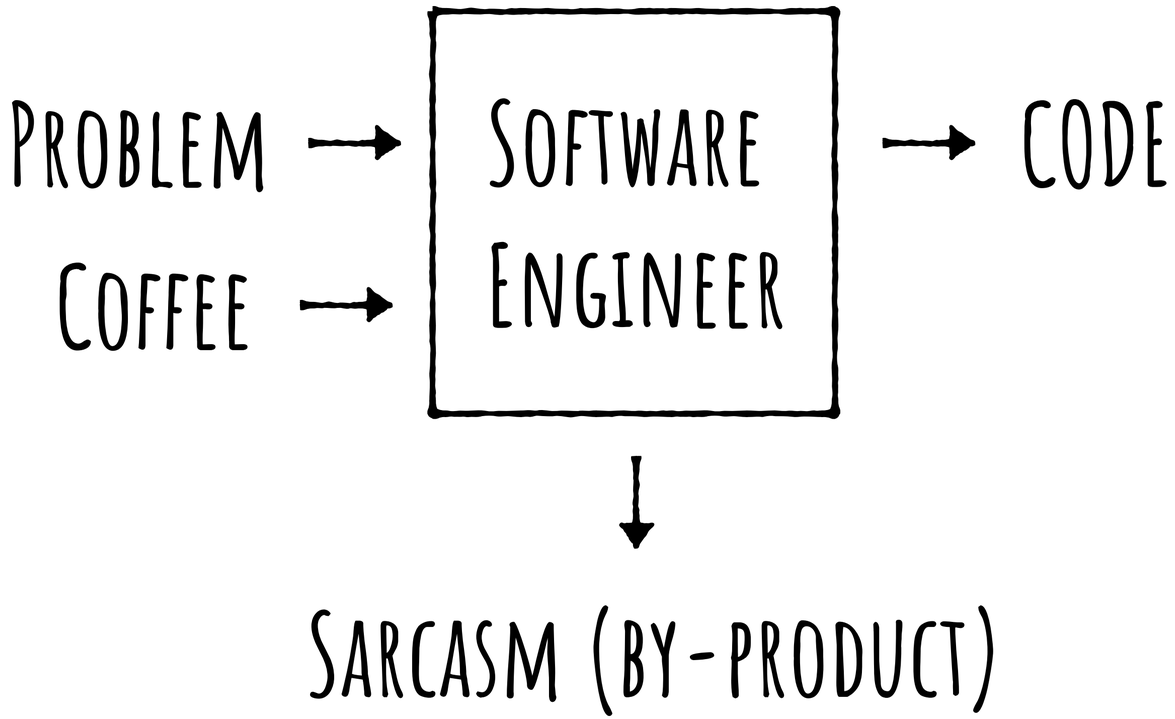
—DHH, The Perils of mixing open source and money, Nov 12, 2013.

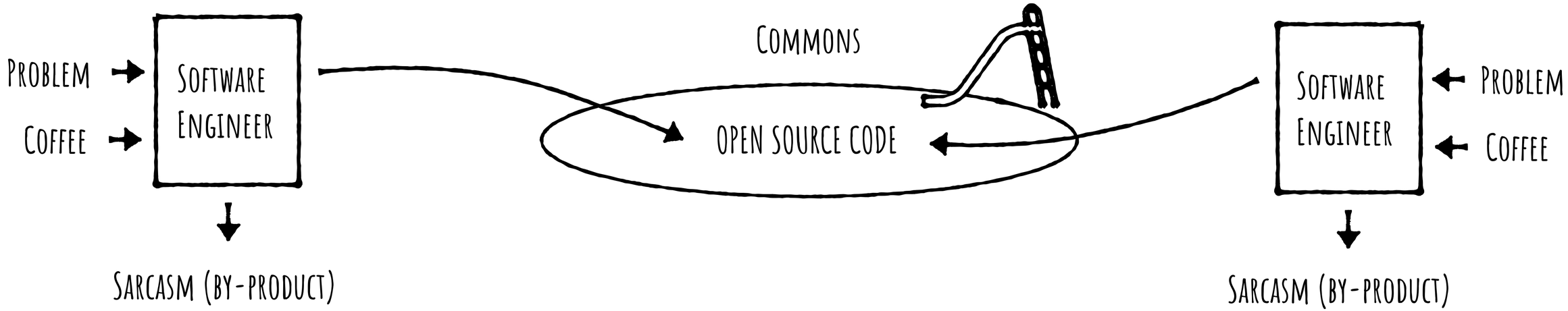
# Developers working on the Linux kernel

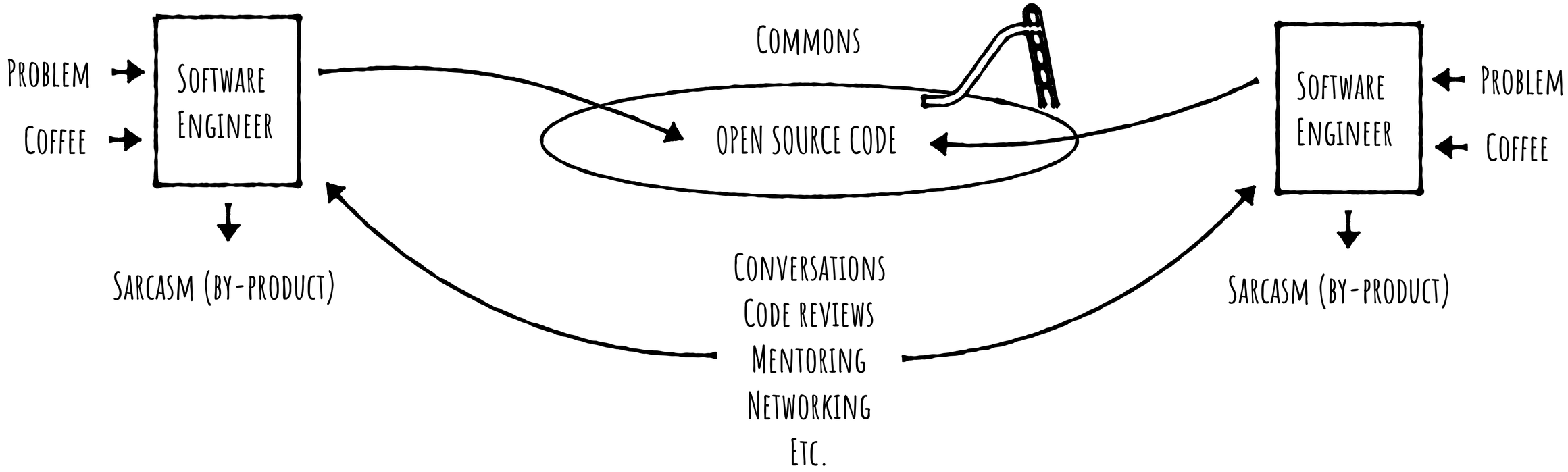


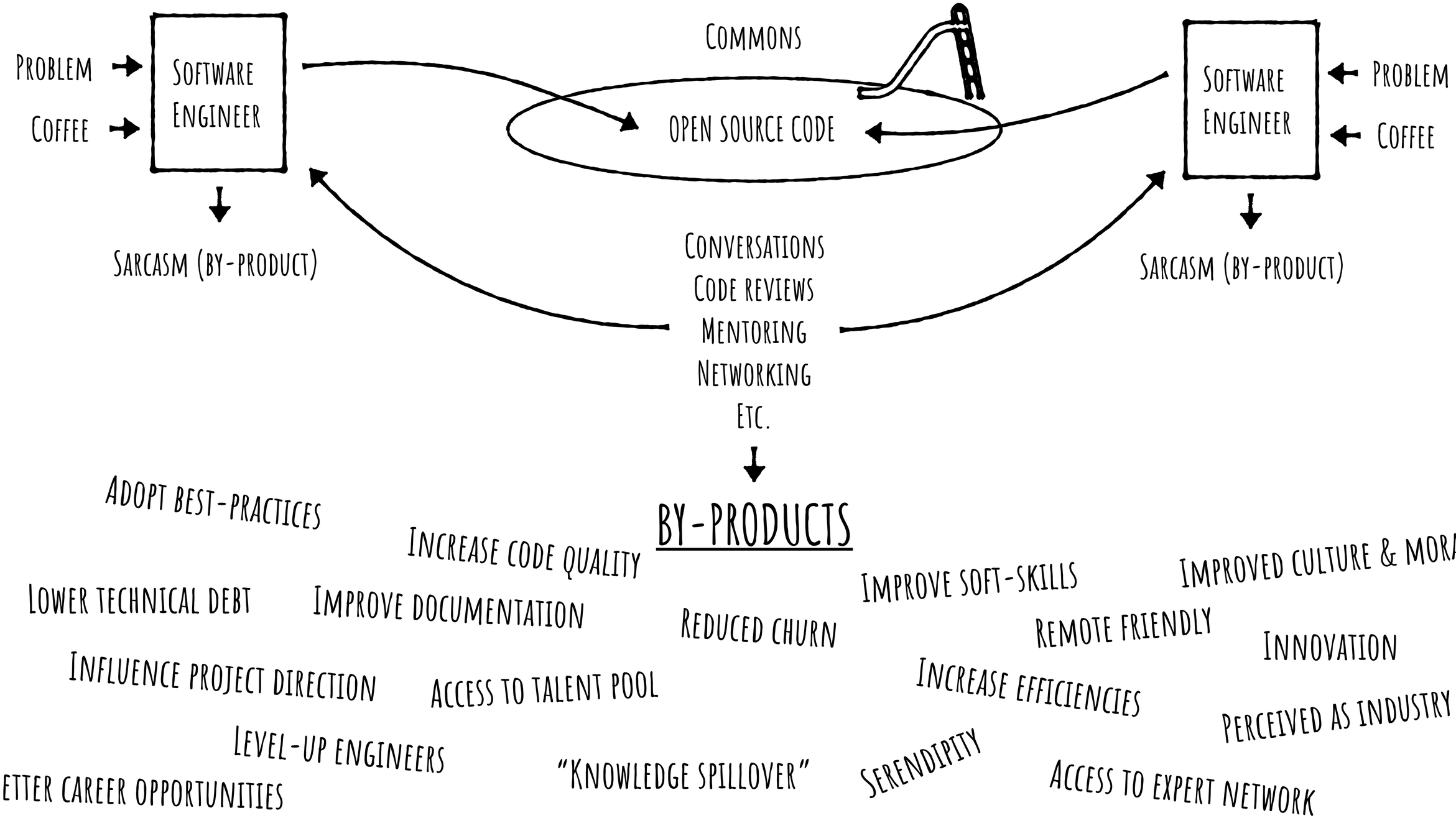

Source: Linux Kernel Development report 2016.


Problem
Coffee
Engineer
Solution
Sarcasm (by-product)


Problem
Coffee
Software Engineer
Code
Sarcasm (by-product)

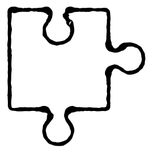

Problem
Coffee
Software Engineer
Sarcasm (by-product)
Commons
Open source code
Software Engineer
Problem
Coffee
Sarcasm (by-product)


Problem
Coffee
Software Engineer
Sarcasm (by-product)
Commons
Open source code
Conversations
Code reviews
Mentoring
Networking
Etc.
Software Engineer
Problem
Coffee
Sarcasm (by-product)


Problem
Coffee
Software Engineer
Sarcasm (by-product)
Commons
Open source code
Conversations
Code reviews
Mentoring
Networking
Etc.
Software Engineer
Problem
Coffee
Sarcasm (by-product)
By-products
Adopt best-practices
Increase code quality
Improve soft-skills
Improved culture & morale
Lower technical debt
Improve documentation
Reduced churn
Remote friendly
Innovation
Influence project direction
Access to talent pool
Increase efficiencies
Perceived as industry leader
Level-up engineers
"Knowledge spillover"
Serendipity
Access to expert network
Better career opportunities

# BY-PRODUCTS

## PROJECT



Improve documentation

Increase code quality

Lower technical debt

Influence project direction

## INDIVIDUAL

Level-up engineers

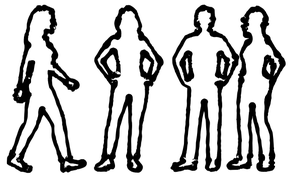
Adopt best-practices

Improve soft-skills

Access to expert network

Better career opportunities

## TEAM



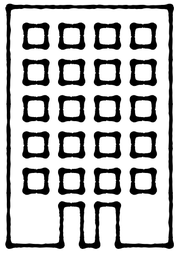
Increase efficiencies

Serendipity

Innovation

"Knowledge spillover"

## ORGANIZATION



Improved culture & morale

Perceived as industry leader

Access to talent pool

Remote friendly

Reduced churn

## TWICE AS EFFICIENT

Contributing firms capture up to 100% more productive value from usage of open source than their free-riding peers.

# 2×

Source: Franck Nagle, Learning by Contributing, 2017.

# 75%

of Facebook's new engineering recruits mention Facebook's open source Program as a key reason they accepted their offer

*The key to open source sustainability is to make organizations understand the ROI of contributing to open source:*

*What's in it for **them**.*

**Tobie Langel**
**Principal, UnlockOpen**
unlockopen.com
tobie@unlockopen.com
@tobie

FOSDEM '19 Brussels 2 & 3 February 2019

# Thank you!