



# Business Opportunities through Open Technologies


















- Mario Behling

In the world of tech every company has access to technology.

A key factor in this new tech world is the speed of development.

How fast are companies able to implement ideas and make them become a reality?

# Organizations Ranking

	1. google	★ 781716
	2. facebook	★ 764310
	3. Microsoft	★ 474775
	4. apache	★ 364540
	5. freeCodeCamp	★ 318318
	6. vuejs	★ 276179
	7. tensorflow	★ 246833
	8. alibaba	★ 239633
	9. airbnb	★ 230672
	10. spotify	★ 220808
	11. square	★ 214755
	12. github	★ 202125
	13. twilio	★ 195073
	14. uber	★ 161121
	15. mozilla	★ 153430
	16. symfony	★ 147925
	17. shadowsocks	★ 139491

Source: [gitstar-ranking.com/organizations](https://github.com/gitstar-ranking.com/organizations)

**foss**  
**asia**

**MBM**



# Our Network

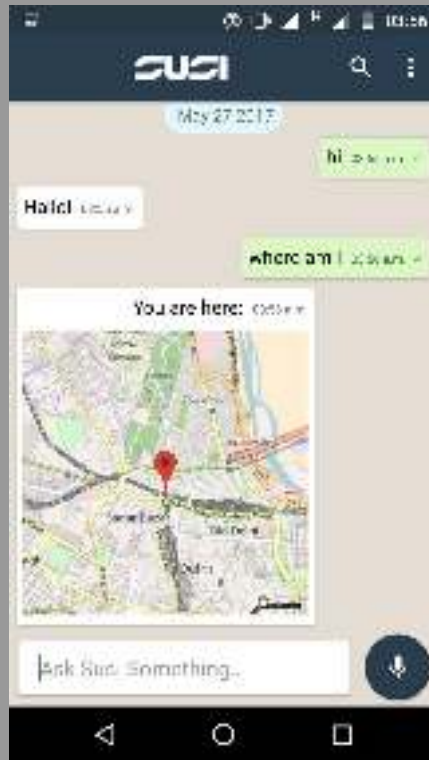
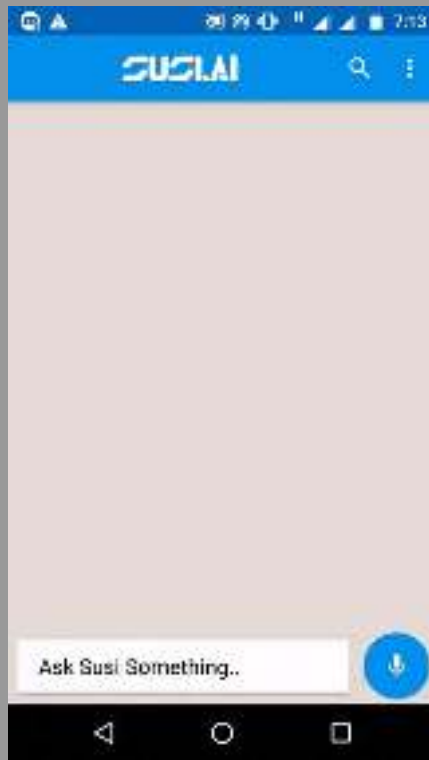
- ❑ 35,000+ developers on mailing lists, social media channels
- ❑ 3000+ developers registered on FOSSASIA and OpnTec GitHub orgs
- ❑ Training 2000+ developers through coding programs annually
- ❑ Dozens of face to face meetings at developer events, hackathons and workshops throughout Asia every month
- ❑ 80+ authors of regular tech blog articles



The screenshot shows the GitHub organization page for FOSSASIA. The organization name is "FOSSASIA" with the tagline "Open Technologies in Asia". The location is listed as "Singapore", the website as "https://fossasia.org", and the email as "fossasia@googlegroups...". At the bottom, there are statistics: "Repositories 213", "People 3,089", "Teams 80", and "Settings".



The screenshot shows a grid of member avatars for the FOSSASIA organization. The title is "People" and the count is "3,089". The grid contains 15 small profile pictures of various individuals.



SUSI is capable of chat and voice interaction and by using APIs to perform actions such as music playback, making to-do lists, setting alarms, streaming podcasts, playing audiobooks, and providing weather, traffic, and other real time information.

# Maker workshops with Pocket Science Lab Singapore



# Science and Tech in Schools - Can Tho, Vietnam





# Ho Chi Minh, Vietnam: Coding events



```
INSTALLATION LOGS
-----
* Step 0** - Create application
-----
export DATABASE_URL=mysql://root:root@localhost:3306
export SERVER_URL=localhost:3000

* Step 0** - Start the postgres
-----
sudo service postgresql restart

* Step 0** - Create the tables
-----
psql -h localhost -U postgres -d postgres -c 'CREATE DATABASE mydb;'
psql -h localhost -U postgres -d postgres -c 'CREATE TABLE users (id SERIAL, name VARCHAR(255), email VARCHAR(255), password VARCHAR(255));'
psql -h localhost -U postgres -d postgres -c 'CREATE TABLE sessions (id SERIAL, user_id INT, token VARCHAR(255), expires_at TIMESTAMP);'

* Step 1** - Start the application
-----
psql -h localhost -U postgres -d postgres -c 'CREATE DATABASE mydb;'
psql -h localhost -U postgres -d postgres -c 'CREATE TABLE users (id SERIAL, name VARCHAR(255), email VARCHAR(255), password VARCHAR(255));'
psql -h localhost -U postgres -d postgres -c 'CREATE TABLE sessions (id SERIAL, user_id INT, token VARCHAR(255), expires_at TIMESTAMP);'

# Download and run PM2
sudo npm install -g pm2
pm2 start ecosystem.config.js
```

```
ecosystem.config.js
-----
{
  apps: [
    {
      name: 'my-app',
      script: 'server.js',
      instances: 1,
      autorestart: true,
      watch: false,
      max_memory: 50M,
      max_restart: 3,
      env: {
        'NODE_ENV': 'production',
        'PORT': 3000,
        'DATABASE_URL': 'mysql://root:root@localhost:3306',
        'SERVER_URL': 'localhost:3000'
      }
    }
  ]
}
```

# India: Code Heat Event



# Science Hack Workshop, Belgaum India



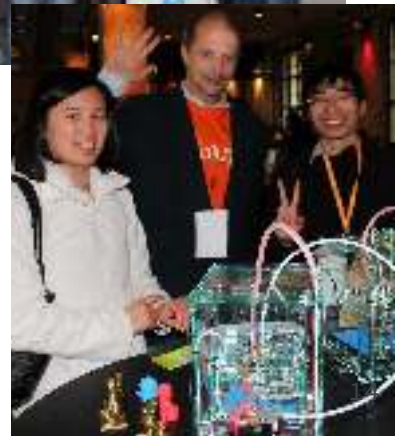
# Open Source Lasercutter Workshop Singapore



# FOSSASIA Summit - Annual Signature Event in #Singapore



# OpenTechSummit Europe - Berlin



# SCALING

**The closed model is  
incompatible with the open  
development approach and  
the embedded culture in  
FOSS/Open Source.**



**The advantages of FOSS and the value that Open Source provides to companies outweighs anything else.**

# Participants In Open Tech Development

- contract companies with developers, engineers and designers
- freelance developers
- regular unpaid contributors
- sporadic contributors
- testers of products
- submitters of feature requests and bug reports
- technologists and consumer focused product fans
- interested beginner developers, e.g. students
- companies and developers that use the technology
- traditional consumers

**How can we tap into the developer community and engage developers in our projects?**

**How can we get the best developers on board for our commercial operations?**

**How can we scale up our operations as quickly as possible?**

# Best Practices

# Our Experience / What is important to Attract Developers

- ❑ Reach of a large developer network
- ❑ Exciting projects
- ❑ Positive brand image (do cool things and do good)
- ❑ Provide Opportunities (recognition, money, travel, jobs)
- ❑ Work with processes that developers are accustomed to
- ❑ Implement processes that people like to work with (The Open Source Way)

**Create a sense of ownership in your projects. Let developers take control and responsibility of code development and let them enjoy a good degree of freedom where they can thrive.**

# Use Scrum on Mailing List for Daily Briefings

1. What did you do yesterday?
2. What do you plan to do today?
3. What is currently preventing you from achieving your goals?

<input type="checkbox"/>			'akhan.bsce15seecs' via	Inbox	Susi	[SCRUM] Ali Ayub Khan - SUSI.AI Bots 20170531 - false - 1. What did I do yesterday? - Re	5:29 am
<input type="checkbox"/>			Tarun Kumar	Inbox	melitx	[Scrum] Tarun Kumar - Linux Distro for Events - 20170531 - False - *1. What did I do yes	5:20 am
<input type="checkbox"/>			Anant Prasad	Inbox	phimpme	[Scrum] Anant Prasad - Phimpme Android - 20170531 - 1. What did I do yesterday? - N	4:23 am
<input type="checkbox"/>			Padmal	Inbox	Pocket Science	[PSLab] [Scrum] Padmal - PSLab Firmware - 20170531 - False - *1. What did I do	4:00 am
<input type="checkbox"/>			chiragwadhera15	Inbox	Susi	[Scrum] Chirag Wadhera - SUSI.AI-Android - 20170531 - False - *1. What did I do yesterda	1:48 am
<input type="checkbox"/>			vibhorverma1995	Inbox	[opntec-dev]	[Scrum] Vibhor Verma-loklak_server-20170531-False - 1. What did I do yesterday? i	1:36 am
<input type="checkbox"/>			Shubham Padia	Inbox	open-event	[Scrum] Shubham Padia - Server - 20170531 - False - 1. What did I do yesterday? 1.4	12:54 am

# Use Chat for Quick Exchanges

Less discussion, more code.

The screenshot shows a GitHub chat window for the repository `fossasia/susi_server`. The interface is divided into three main sections: a sidebar on the left for navigation, a central chat area, and a right-hand panel for user management and activity.

**Left Sidebar (ALL CONVERSATIONS):**

- open-event-webapp
- open-event-orga-app
- fossasia/pslab
- susi\_hardware
- susi\_server** (selected)
- susi\_webchat
- susi\_android
- susi\_ios

**Chat Area:**

The chat shows a conversation about user roles:

- Chetan Kaushik** (@dynamitechetan) asks: "@orbiter how does a user become a admin at susi server?" (May 29 22:17)
- Michael Christen** (@Orbiter) replies: "the user role implementation is incomplete, so, until now: we don't have roles, just a role concept. It means you don't get admin now. There is no admin role." (May 29 22:18)
- Chetan Kaushik** (@dynamitechetan) replies: "there is a function" (May 29 22:22)

A code block is shown in a dark background:

```
public Authorization getAdmin() {
    this.json.put("admin", true);
    if (parent != null && getIdentity().isPersistent()) parent.
    return this;
}
```

Chetan Kaushik asks: "what is this expected to do?"

**Right Panel (PEOPLE - WATCHING):**

- A grid of 13 user avatars.
- Buttons: "ADD" and "SEE ALL (13 PEOPLE)"

**Right Panel (ACTIVITY):**

- Activity feed showing a commit by `yukisbord` on `gh-pages`.
- Text: "Latest [avardoc on successful tr... (complete)"



# Use public tracker and stay focused

- ❑ Reduce communication overhead and avoid trolls
- ❑ The right place for specific feature discussions
- ❑ Make the development flow clear and structured
- ❑ Allow newcomers to join more easily
- ❑ Scale up more quickly by discussing on tracker instead of unstructured chat

fossasia / susi\_android

Unwatch ▾

23

Unstar

200

Fork

213

Code

Issues 36

Pull requests 5

Settings

Insights ▾

Filters ▾

is:issue is:open

Labels

Milestones

New Issue

36 Open ✓ 277 Closed

Author ▾

Labels ▾

Projects ▾

Milestones ▾

Assignee ▾

Sort ▾

# Implement Policies for Scalable and Faster Code Merges

- ❑ Match each pull request with an issue
- ❑ Break a big issue into multiple small issues
- ❑ Establish a peer review process
- ❑ Earn write access
- ❑ Make things easy for project maintainers
- ❑ Documentation is part of daily development

fossasia / susi\_server

Unwatch 26

Unstar 181

Fork 157

Code

Issues 55

**Pull requests** 1

Wiki

Settings

Insights

Filters

is:pr is:open

Labels

Milestones

New pull request

1 Open ✓ 67 Closed

Author

Labels

Projects

Milestones

Reviews

Assignee

Sort

# Motivate developers to work more efficiently

- Fun in the Open Source Development Way
- Give Recognition
- Provide Opportunities (through development programs and contests and jobs in startup spin-offs)



# Benefits and Governance

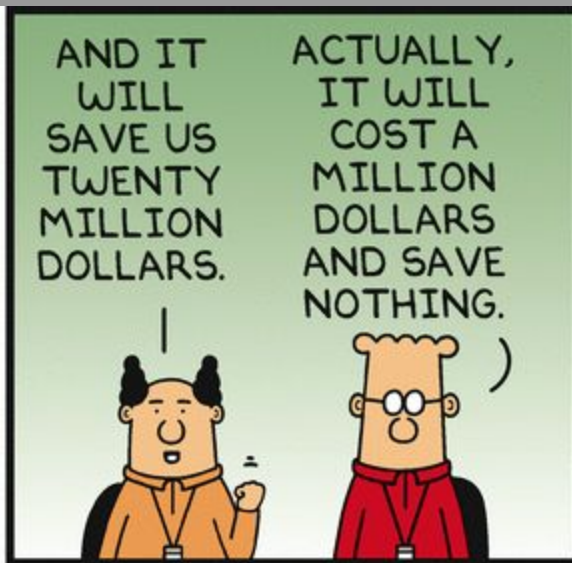
- Access to code,
- Operation limits
- Influence on decisions
- Access to core developers
- Access to meetings
- Write access, merge rights
- Test devices and prototypes
- Travel funding
- Visa support
- Health insurance
- Financial benefits
- Recognition letters
- Ensured legal setting and legal support
- Good work environment
- Opportunities for diverse personalities

# Collaborating in the Open: How Open Source Communities and Companies Benefit from Open Development



@SCOTTADAMSAYS

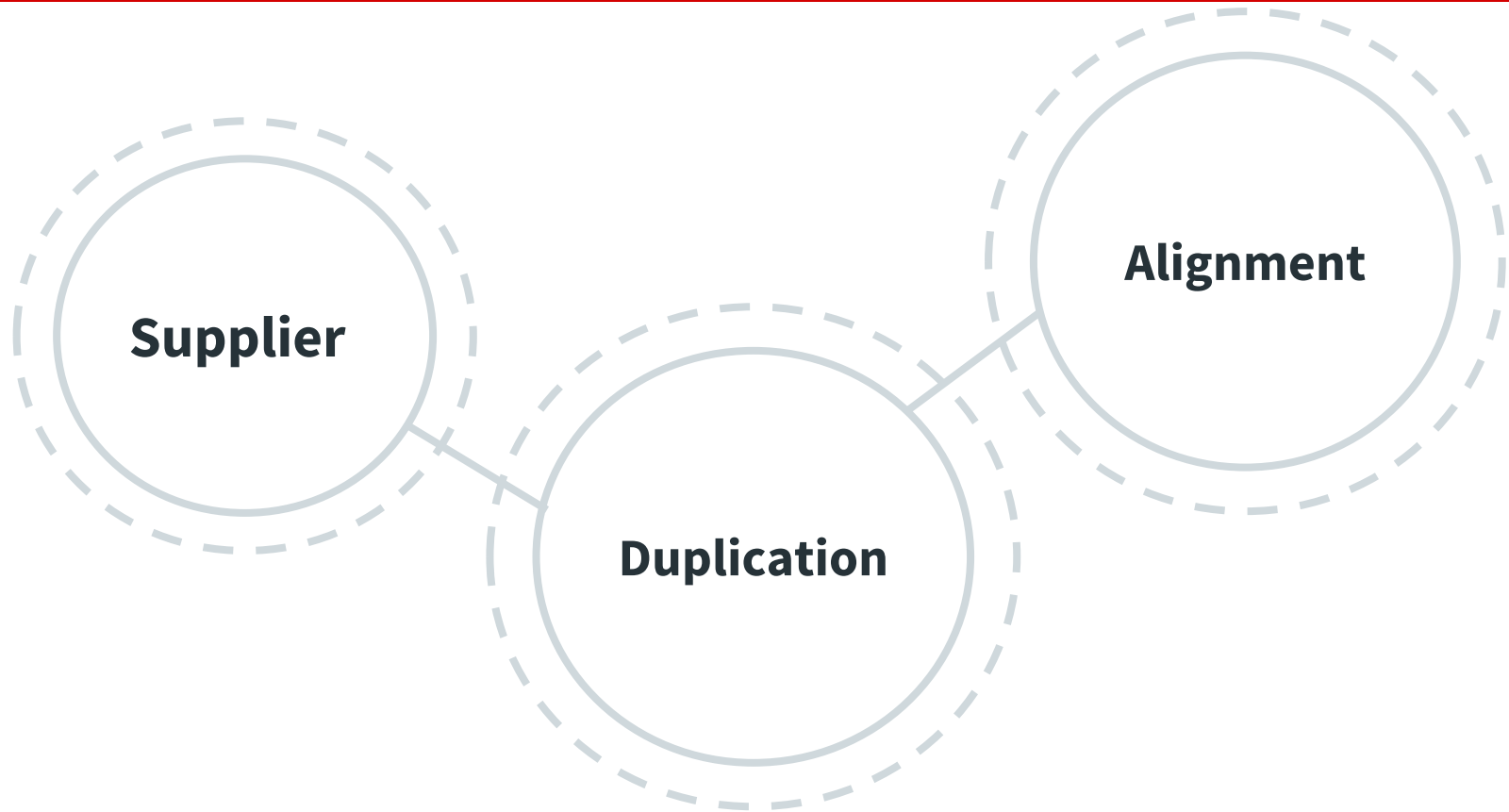
DILBERT.COM



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# Problems



# Adopting Open Source: Challenges (Mercedes Benz)

<b>People</b>	<b>Infrastructure</b>	<b>Legal</b>	<b>Suppliers</b>
Fear of change Fear of maintenance effort Fear of individual disadvantages	Current situation Data infrastructure Code Proxy policy	Tax Transfer prices Licensing Intellectual property	Contract Compliance





## Goal

Practical  
Achievable  
Measurable



## Developer Program

Platforms & tools  
Advocates  
Developer experience



## Education

Mentorship  
(codeheat.org)  
Training (p2p)  
Younger generation



## Event

Hackathons  
Code sprints  
Developer  
conferences



## Innovation Fund

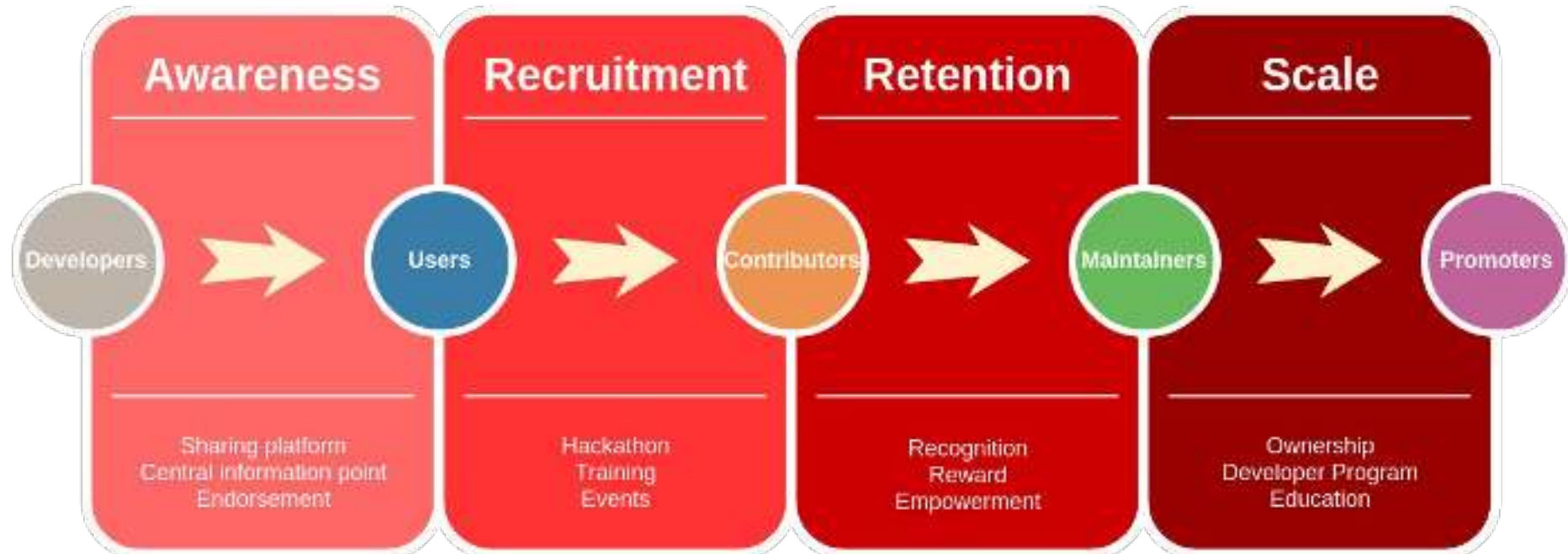
Internal projects  
Open source projects  
Start-ups



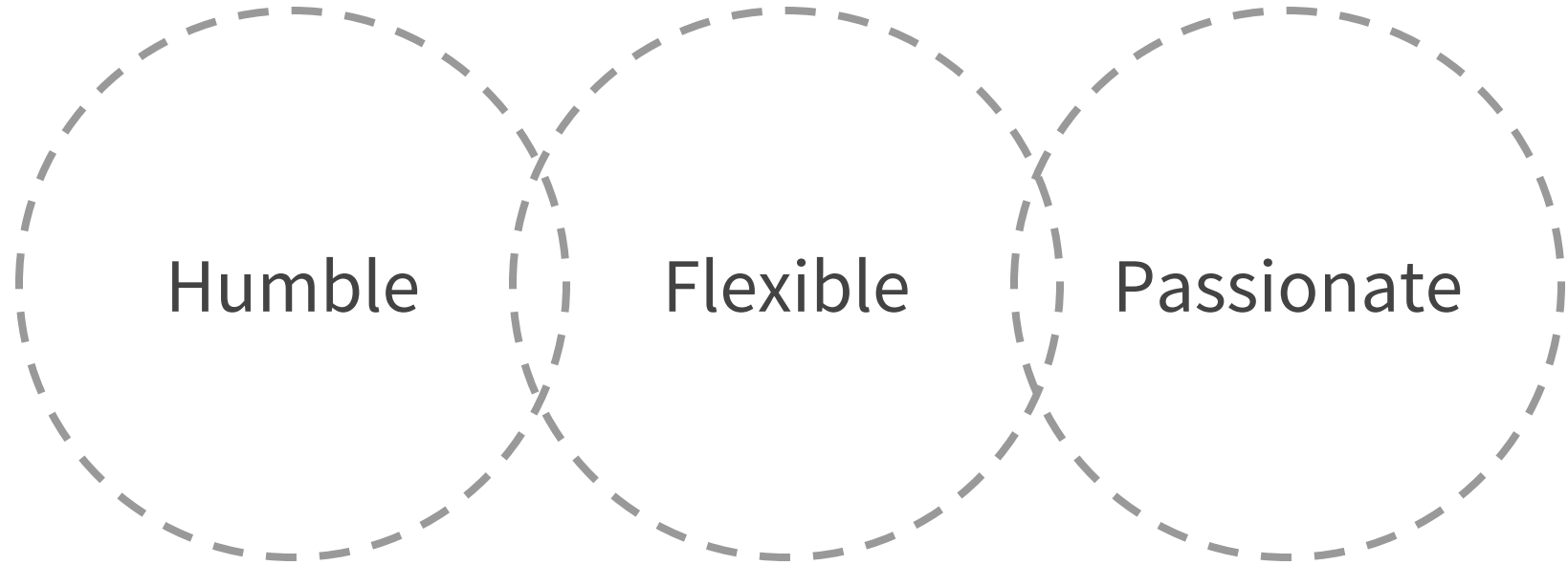
## Reward

Praise, recognition  
Promotion  
Award

# Developer Engagement Approach



# Personal Attitude in Open Collaboration





“In real open source, you have the right to control your own destiny.”

- Linus Torvalds



@mariobehling

Asia / [fossasia.org](http://fossasia.org)

Europe / [opntec.com](http://opntec.com)