



# Samsung and the Path to Open Source Leadership

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# Abstract

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**2002 marked the first year that Samsung started using embedded Linux and incorporating open source software in a very small number of products.**

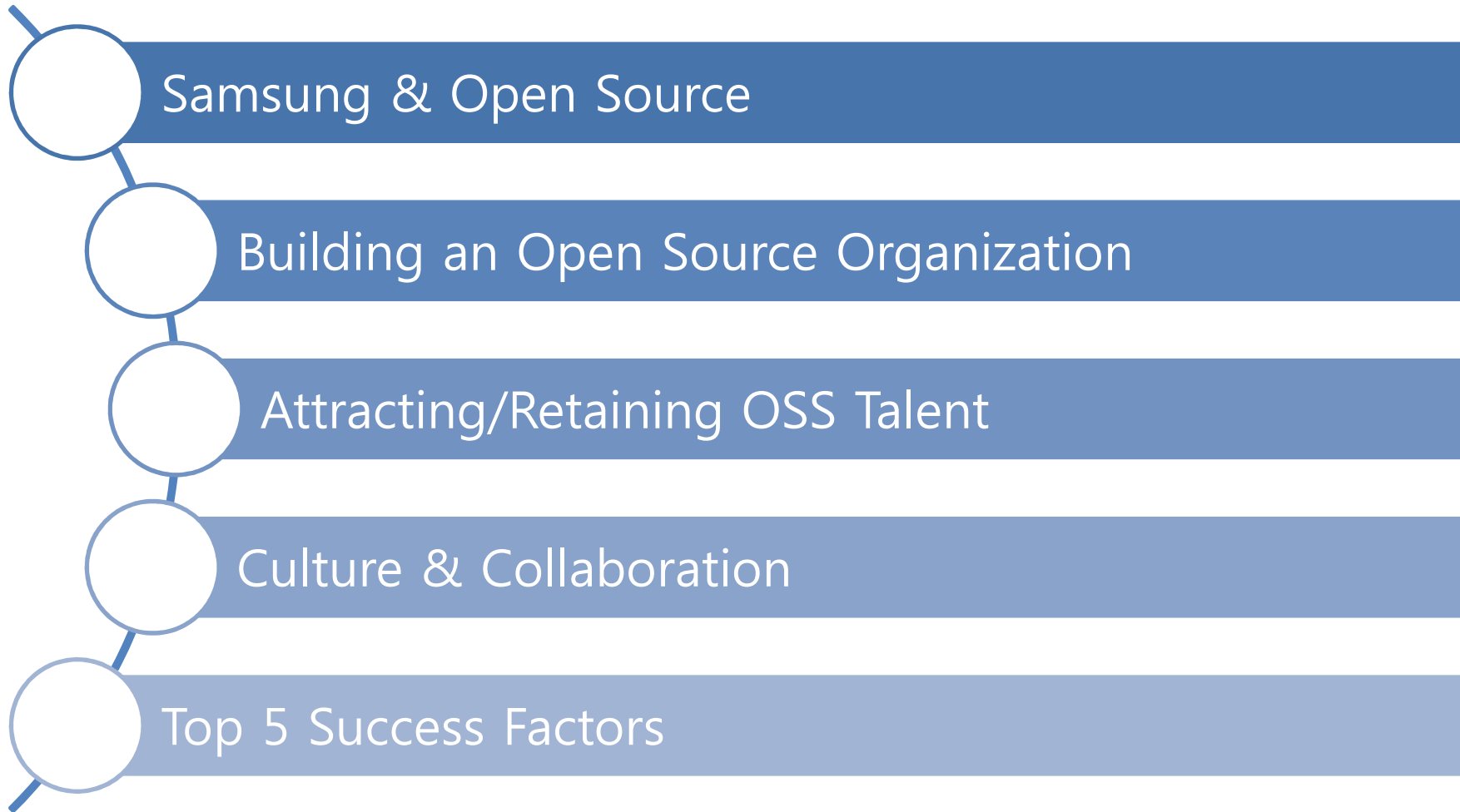
**Ten years later, we are using Linux and open source code in a wide range of products (TVs, Cameras, Smartphones, Printers, Home Appliances, etc.) .**

**Additionally, the Open Source Office was established in HQ (2012), followed in 2013 with the creation of the Open Source Group in Silicon Valley. All of these are solid steps Samsung is taking to widen its footprint in the open source ecosystem and to ensure strong presence in open source projects that are critical to the success of our products.**

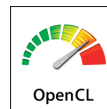
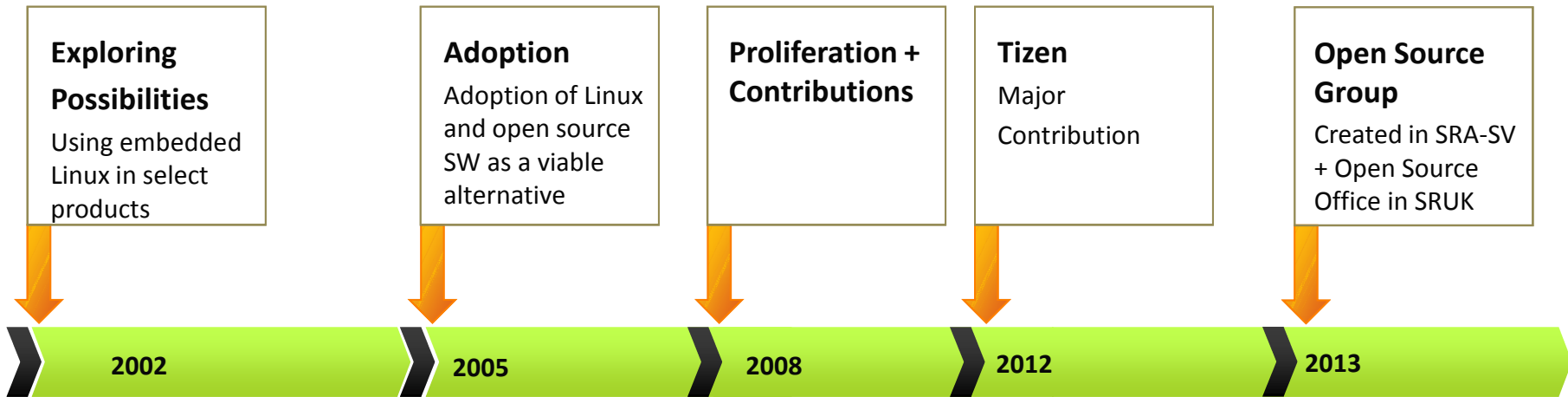
**In this talk, we provide both a historical perspective/lessons learned for succeeding in open source, and also an overview of the Samsung Open Source Group (goal, mission, focus areas).**

# Topics

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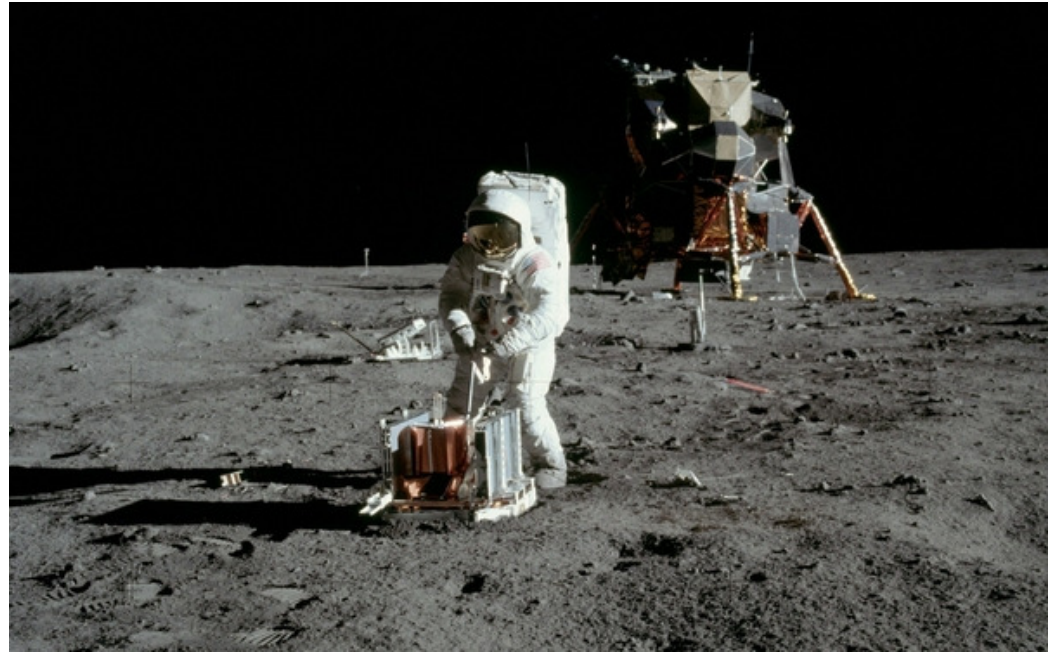
# Samsung's Open Source Historical Timeline



# Samsung Open Source Group Mission

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## Open Source Leadership



- Target goal: **4 years**
- Average: **~8 years**
- Leverage best practices of other companies
- Hire maintainers/major contributors to key open source projects

# Why?

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# Open Source Leadership

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**OPEN SOURCE LEADERSHIP**

CANNOT BE

**GIVEN**

IT MUST BE

**EARNED**

IT CANNOT BE

**TAKEN AWAY**

IT CAN BE LOST BY

**LACK**

**OF PARTICIPATION & CONTRIBUTIONS**

# Leadership Takes Time & Focus

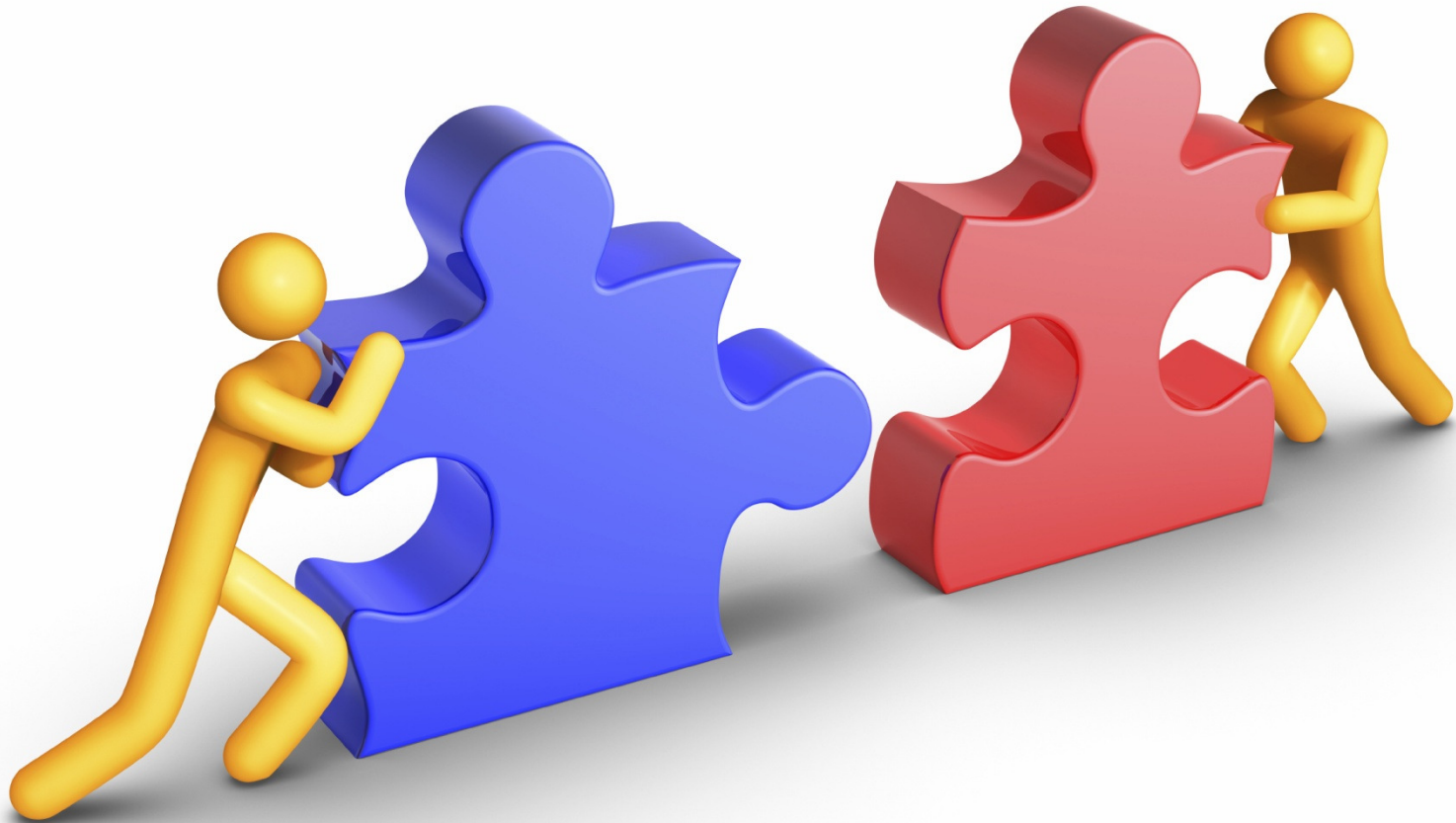
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- Focused effort over several years
- Expect 'uneven' results for at least the 1<sup>st</sup> year
- Be persistent and positive





# Building an Open Source Organization



# Executable Elements

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Strategy

Coaching

Development

Team Building

Relationship with open source organizations

Build open source infrastructure

Engage with open source communities

Collaboration/Corporate Culture Change

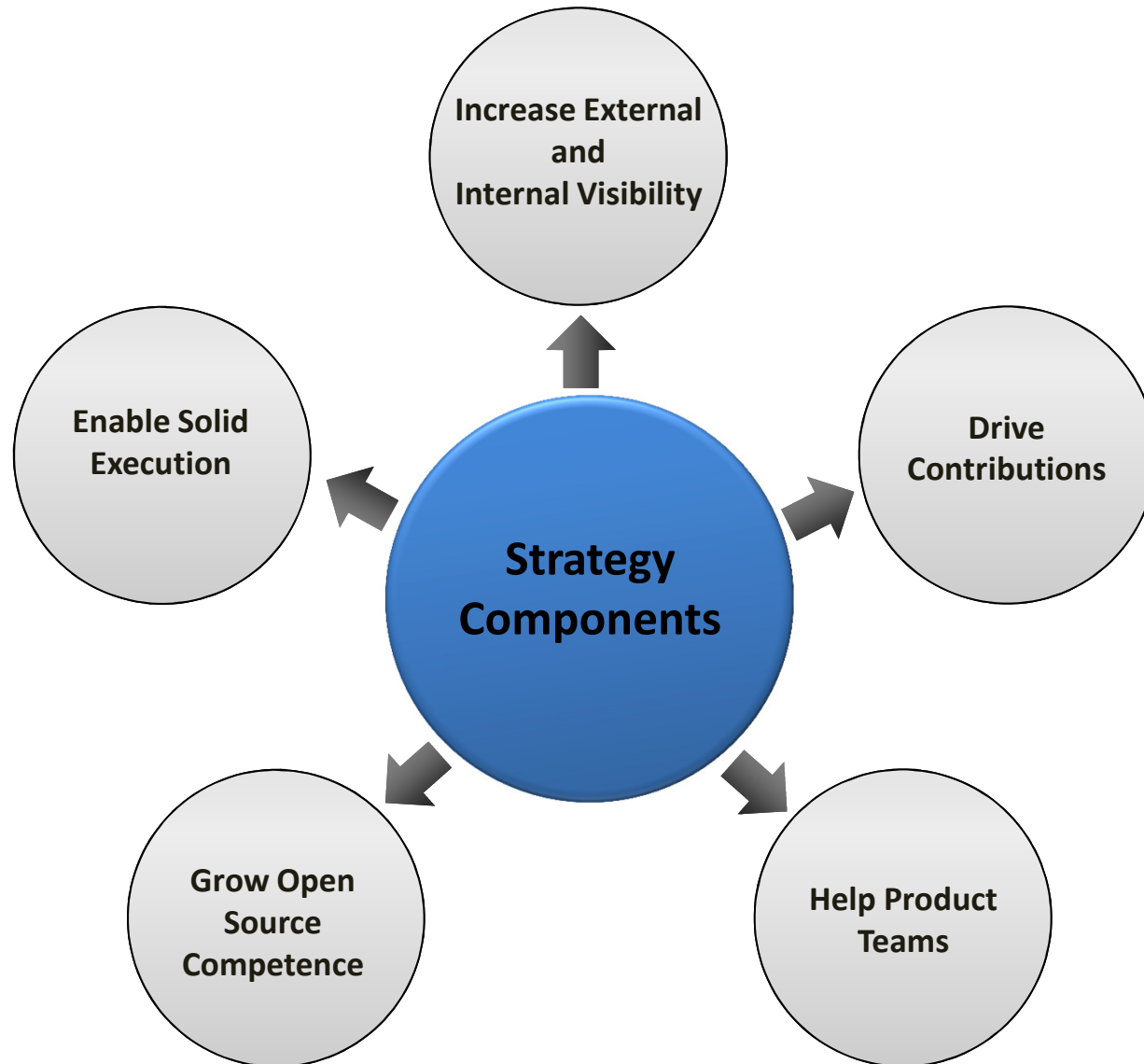
Visibility

Open source planning

Support product teams

# Strategy

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# Samsung Open Source Teams

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## HQ Open Source Team (Suwon, Korea)

- Strategy
- Planning/Coordination
- Budget / Finance
- Evaluation of core components
- HQ open source activities
- Internal visibility within Samsung
- External visibility in Korea

## SRUK Open Source (Staines, UK)

- Strategy/planning/coordination with HQ
- Hiring from EU open source developers
- Development work - core open source projects
- EU-focused evangelism
- Relationship with EU open source organizations
- Collaboration in EU
- Sensing for HQ
- Visibility in EU

## SRA-SV Open Source Group (Silicon Valley, USA)

- Strategy/planning/coordination with HQ
- Hiring from NA open source developers
- Development work - core open source projects
- Global evangelism
- Relationships with open source organizations
- Collaboration in NA
- Sensing for HQ
- Global Visibility

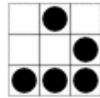
# Open Source Talent



# What To Look for in Open Source Hires

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1. **Strong competence in relevant open source areas/projects**
2. **Open source development expertise**
  - Existing contributor, with path to becoming a maintainer
  - If not established as contributor yet, becoming a contributor is a goal within 6 months of joining
3. **Self motivated & independent thinker**
4. **Cultural fit / team player**



## THE HACKER ATTITUDE

1. The world is full of fascinating problems waiting to be solved.
2. No problem should ever have to be solved twice.
3. Boredom and drudgery are evil.
4. Freedom is good.
5. Attitude is no substitute for competence.

# Key Responsibilities

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- **Contribute to open source projects that are key to products**
- **Help product teams with the open source components they own**
- **Promote open source best practices within the organization**
- **Internal visibility and knowledge transfer (growing pool of talent)**
- **External visibility, building contributor/thought leadership status**



# Attracting/Retaining OSS Talent

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- **Work from home option**
- **Flexible hours for people coming to the office**
- **Fast & stable Linux-ready hardware**
- **Working with upstream projects is a core task (at least 50% of time)**
- **Challenging & exciting internal development/mentoring tasks**
- **Enable visibility via conferences + workshops, internally and externally**
- **Open Source friendly IT/development environment**
  - VPN
  - Email on Linux
  - Internal wiki
  - Git server
  - Minimized reliance on proprietary tools (ideally none)



# Culture & Collaboration



# Open Source Image



# Cultural Change to Accommodate Open Source

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- **Transparency:**
  - Internally around open source project areas
  - Externally with code contributions to communities
- **Trust:**
  - Hire top-tier talent and expect them to perform
  - Work with external communities to help define future
- **Streamlined Processes:**
  - IP reviews
  - License compliance
  - Contribution processes/agreements



# Samsung Upstream Contributions

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- **Supporting 6 main technical areas (more planned):**

- Linux Kernel
- Virtualization
- Media
- Web Technologies
- 2D Graphics
- Cloud Technologies

- **Samsung Maintainers/Leaders in:**

- Kernel (multimedia, power management)
- Web standards (W3C)
- Gstreamer
- FFmpeg
- EFL

- **Samsung Contributors in:**

- Kernel (filesystems)
- Cairo
- Wayland
- Webkit
- Blink
- Xen



# Active Involvement with OSS Organizations

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- **Involvement varies by organization, and can include:**

- Project participation
- Funding activities / projects
- Sponsoring events and conferences
- Leading initiatives
- Co-publications
- Etc.



Software Freedom  
Law Center



Software Freedom  
Conservancy

open  
invention  
*network*<sup>®</sup>



# Top 5 Success Factors



# #5 – Understand Contribution ‘Rules’

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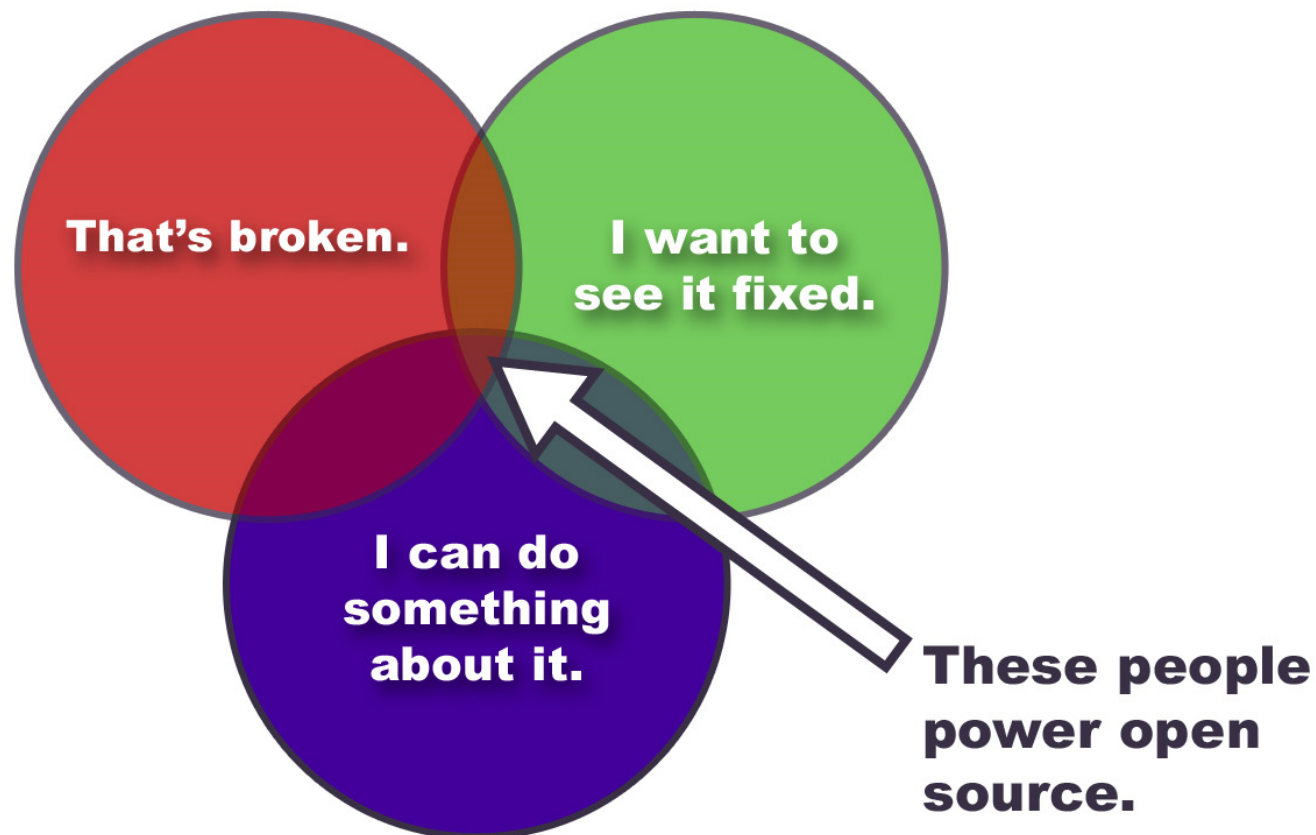
- Each community is different
- Contributions need to ‘fit’ with other code/patches



## #4 – Understand Community Motivators

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- Successful communities are powered by motivated people
- Motivation can be: status, peer recognition, money





## #3 – Be Careful of ‘Custom’ Licenses

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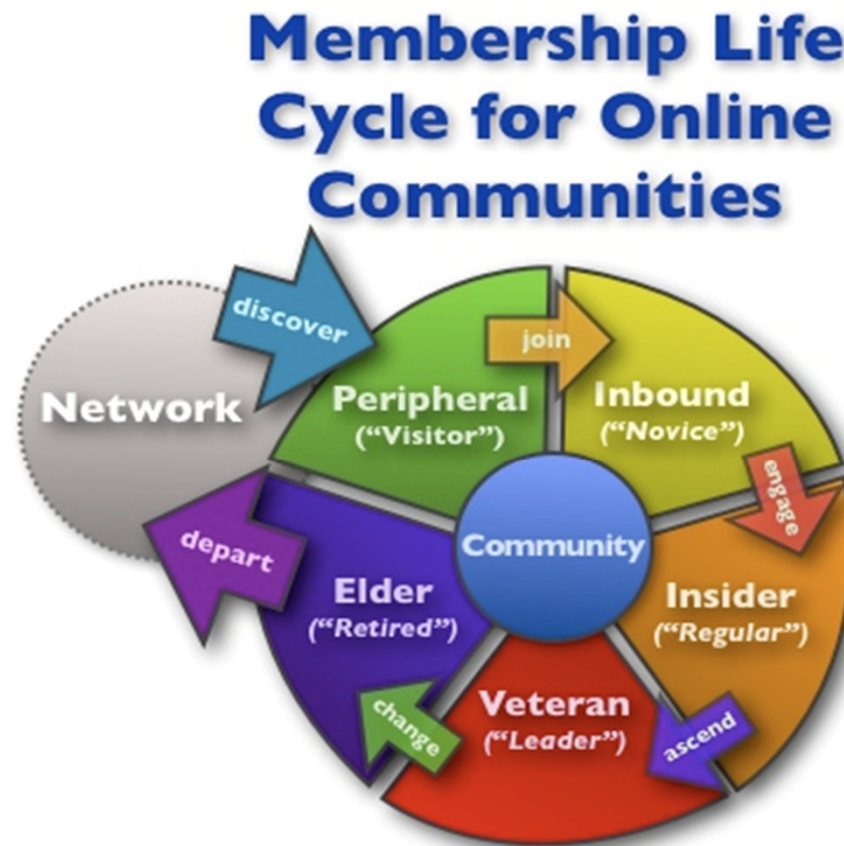
- Communities do not work well with ‘custom licenses’
- Gaining contributors/momentum requires low barriers to entry



<http://opensource.org/licenses/index.html>

## #2 – Communities Need Nurturing

- Posting code to public sites is **not** collaboration
- Community participation is a cycle – expect change

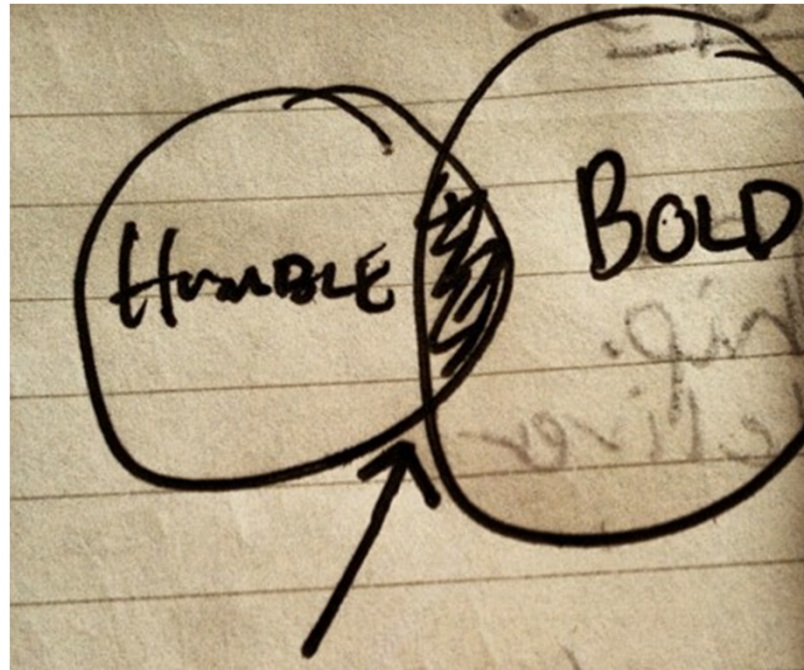


From <http://blogs.zdnet.com/Hinchcliffe>

# #1 – Be Humble, But Bold

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- Community leadership is earned, not granted
  - Accept community feedback and rework code
- Bring technical expertise to the table
  - Contributions need to be ongoing to maintain leadership status



***Management != Leadership***

# Thank you.

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