

# Open Source User Consortia

**Prof. Dr. Dirk Riehle**

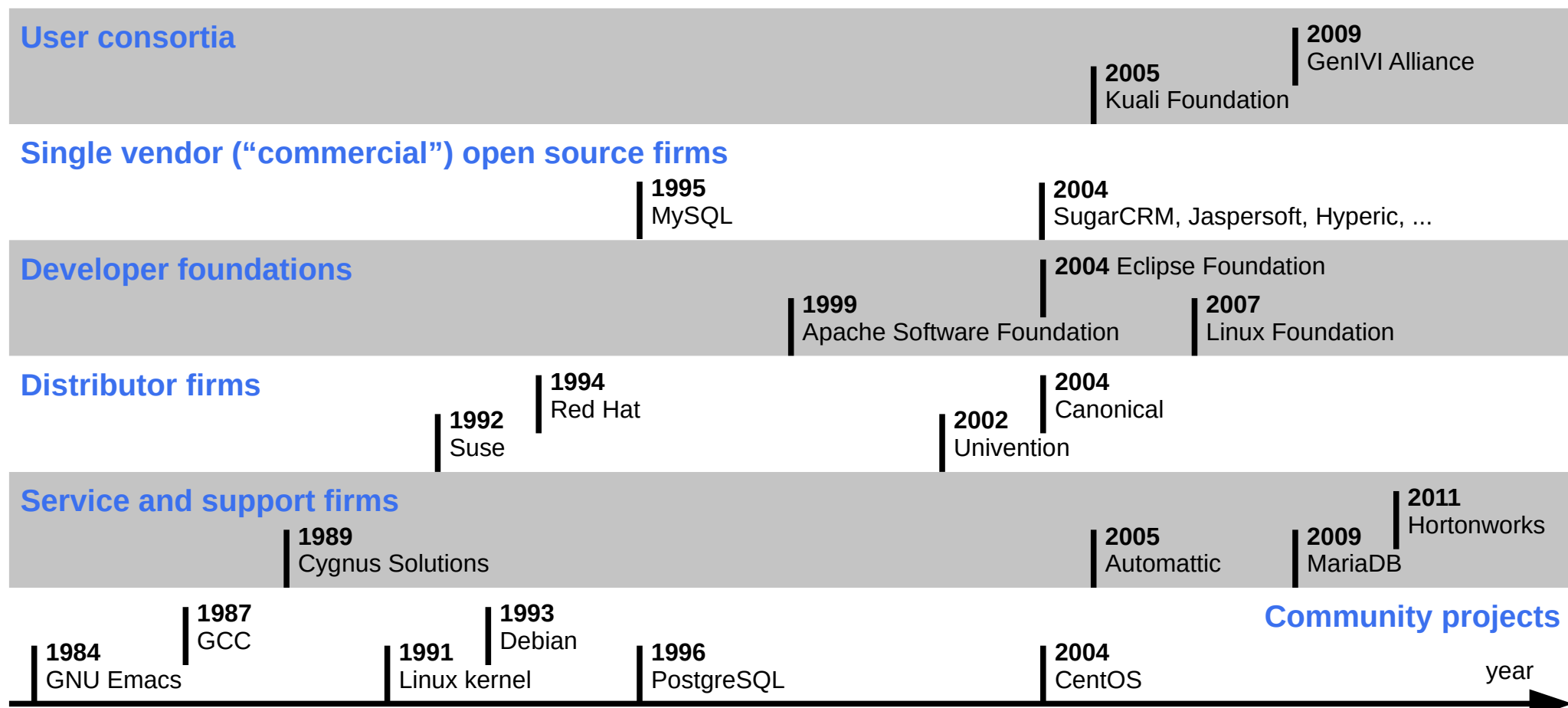
**Friedrich-Alexander University Erlangen-Nürnberg**

**FOSS C03**

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1. Legal innovation
2. Process innovation
3. Software tool innovation
4. **Business model innovation**

# Evolution of Open Source Projects (Recap)



Not a complete history: Events have been chosen for illustration purposes

# Open Source “Business Models” (Recap)

- Non-profit open source
  - **Community projects** without foundation
  - Open source **developer foundations**
  - Open source **user consortia**
- For-profit open source
  - **Service and support firms**
  - Open source **distributor firms**
  - **Single-vendor** open source **firms**

# Project Organization

- Project-based
  - GNU Health
- Formally organized
  - Kuali etc.

# Open Source User Consortium

- An **open source user consortium** is
  - a **non-profit organization** (foundation, consortium)
  - with the purpose of **funding and managing** the development of
  - **non-differentiating open source software**
  - made available to foundation members and **the general public**
- Typical members of a user foundation are
  - Software user firms
  - Software vendors
  - Consulting firms
  - Service suppliers

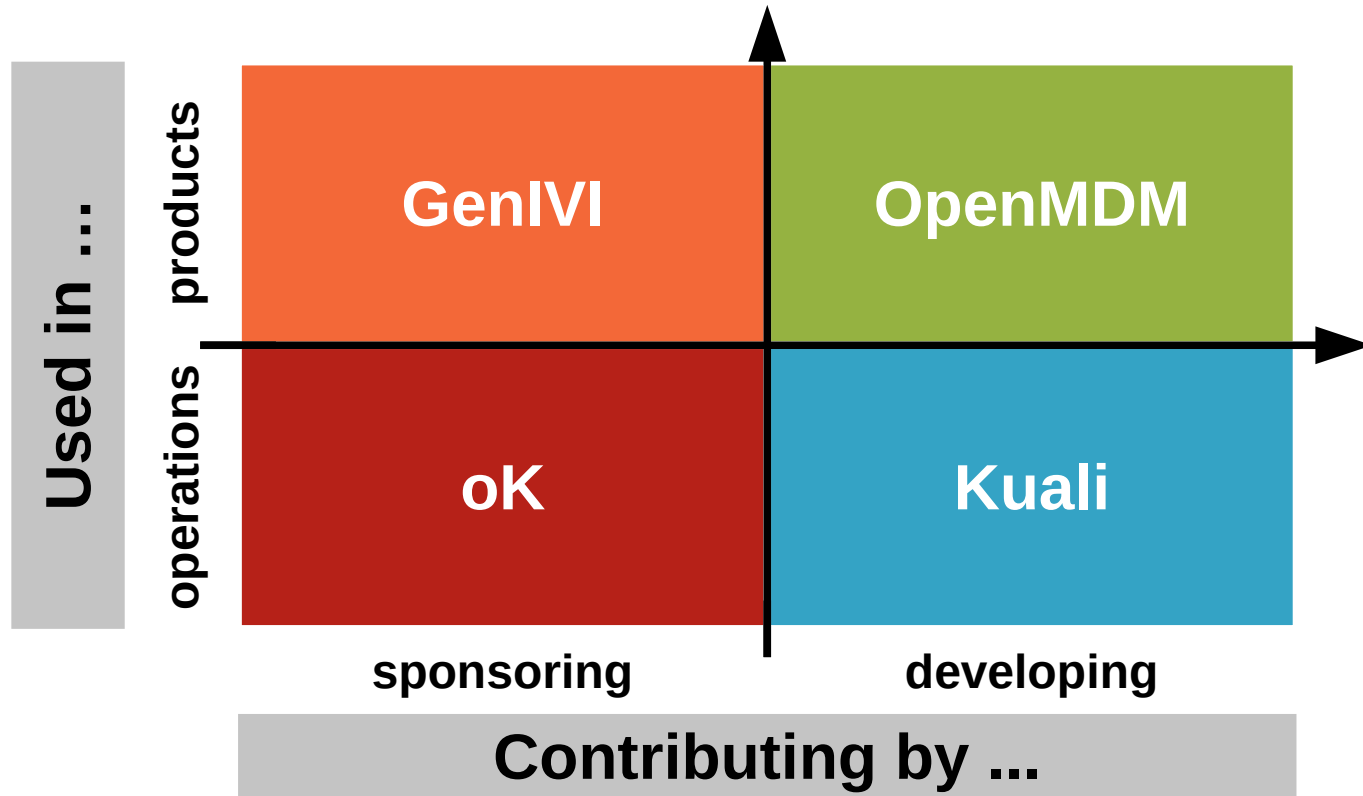
# Examples of User Consortium



To establish a software ecosystem in which **vendors and suppliers can** provide products and services on an equal playing field.



# Classification of User Consortia



# From a Single to Multiple Vendors

**Single Vendor**



**Multiple Vendors**

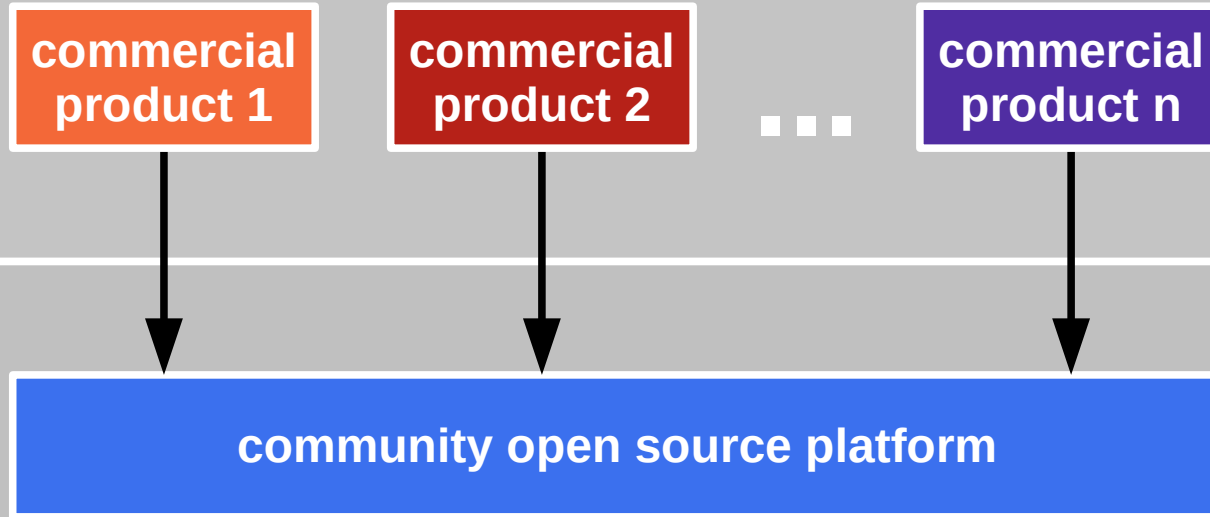


# Problems with Single Vendor Lock-in

- High total-cost-of-ownership
  - High license fees
  - High customization costs
- No or slow realization of customizations
  - Missed or late product or service innovation
  - Missed or late market opportunities
  - No or late reaction to changing markets
  - Limited predictability of future capabilities
- Increased operational risk
  - What to do if vendor goes out of business?

# Software and Services Ecosystem

## Commercial Products and Services

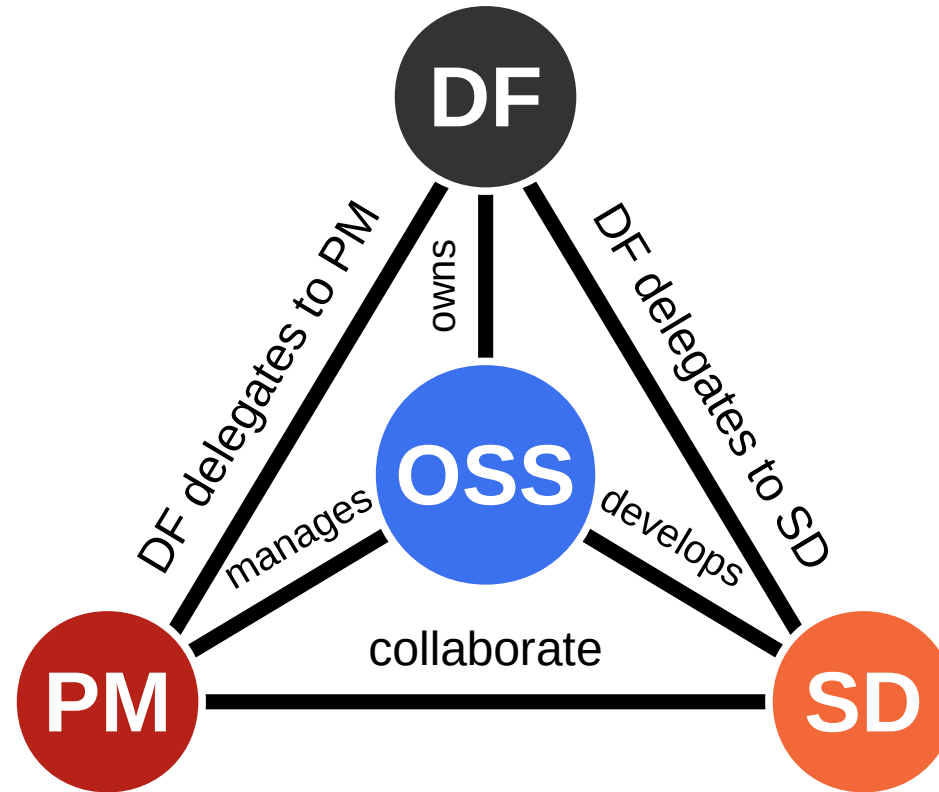


## Community Open Source Software

# Equal Playing Field

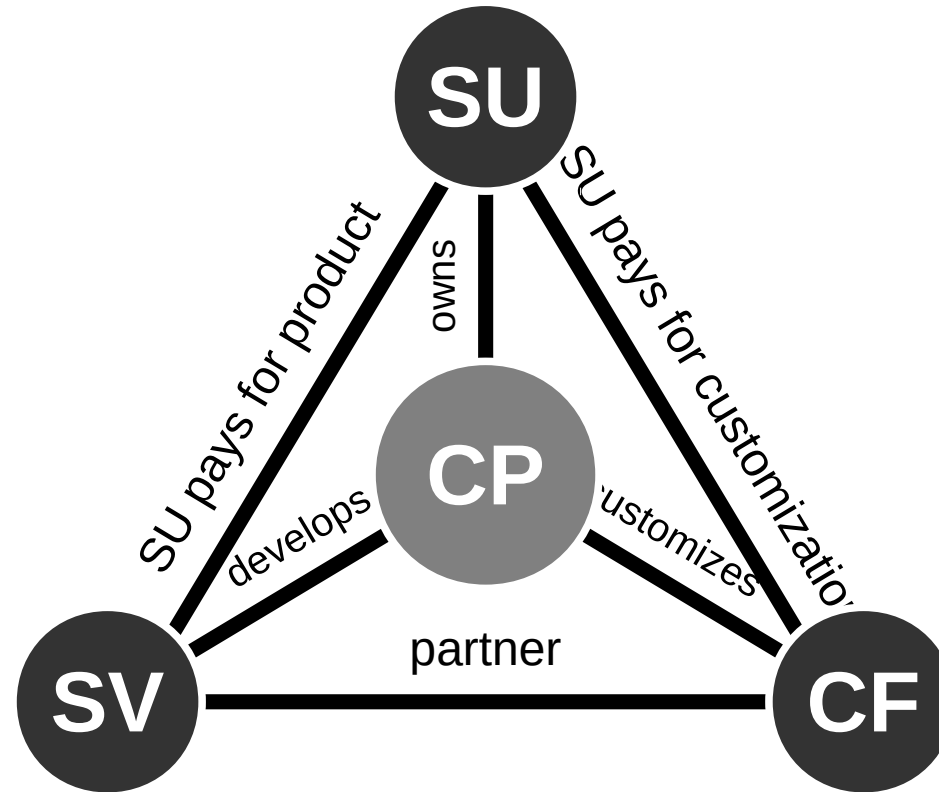
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  - Vendors and suppliers need to be able to earn a sufficient living
  - Users want the ability to switch suppliers, avoid lock-in

# Community Open Source Software Platform



UF = User foundation  
PM = Project management  
SD = Software developers

# Commercial Product and Services



UC = User company  
SV = Software vendor  
SS = Services supplier

- Organization
  - A German (dominated) consortium of insurance companies
- Purpose
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# Cost and Risks to User Companies

- Single Vendor Model

- Costs

- **License and maintenance fees**
    - Customization fees
    - Service fees

- Risks

- Product dies
    - Innovation stalls
    - Costs escalate

- Benefits (unclear)

- Less hassles?

- User Consortium Model

- Costs

- License and maintenance fees
    - Customization fees
    - Service fees

- **Additional costs**

- **Management attention**
    - **Development costs**

- **Benefits**

- **None of the risks**

**User consortia are typically created when the frustration over suppliers outweighs the (expected) hassles of the foundation.**

# Advantages over Traditional Consortia

- Established framework
  - Increasingly well-understood legal and governance framework
  - Increasingly well-understood collaboration behavior
- Resulting benefits
  - Faster creation at lower cost, less friction, more trust
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# Variants of User Consortia

- Classic stand-alone user Consortia
  - Quali, apereo, Prometheus, ...
- As industry working groups
  - Polarsys, OpenMDM, ...
- Strong vendor involvement
  - GenIVI, LocationTech, OpenAPC, ...
- Natural-member user foundations
  - OpenStreetMap, OSGeo, OKFN, ...



# Motivation for Quali Foundation

- Higher ed administrators were dissatisfied [CG06]
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  - Lacking performance (fit-to-needs)
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- Open source user foundation to the rescue [W07]
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# Time-line of Kuali Foundation

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- Since then, various other projects have been set on their way
- The Kuali Foundation manages “community source” development

# Simplified Blueprint [RB12]

- Organizational set-up
- Purpose and philosophy
- Intellectual property
- Governance: Members
- Governance: Board
- Governance: Projects
- Governance: Development
- Finances and operations

# Kuali 1 / 8: Organizational Set-up

- Kuali Foundation
  - Is a U.S.-based 501(c)3 non-profit foundation

# Kuali 2 / 8: Purpose and Philosophy

- Purpose
  - To develop open source administrative software for higher education
  - To significantly reduce costs of such software
  - To promote best practices of administration
- Software
  - To be developed collaboratively
  - To be developed internationally
  - To be sustainable undertaking
- Solution
  - Provided commercially through KualiCo

# Kuali's Core Values

- From the bylaws
  - *Kuali Foundation software is open*
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  - *Kuali Foundation projects are community source*
  - *Investors and partners in Kuali Foundation projects determine priorities*
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- Open source license
  - Affero Gnu Public License v3 (AGPLv3)
  - Provision to students does not constitute “conveyance” (former distribution)
- KualiCo conflicts of interest? [K16]

*What code will Kuali [Co] keep proprietary and not release?*

*Our automation and multi-tenant code. See “How do you protect our shared investment so competitors don’t take it and profit from it without contributing?”*

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- As of 2016
  - Kuali members: 50+ institutions
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- Consists of 14 members
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# Kuali 6 / 8: Project Membership

- Projects have a charter
  - Projects are cross-linked
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- Projects have members
  - A board (like PMC in developer foundations)
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  - Is project-specific (see project charter)
  - Utilizes foundation services (e.g. legal services)

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  - Annual membership dues
- Operations
  - Financial compliance
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  - Event management
  - Facilitation in procurement
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**open** KONSEQUENZ

# Motivation for oK

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  - Changes and add-ons not possible or error-prone
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  - Smart grid (Energiewende) and other challenges
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  - At cost of US\$ 20000 per year per member
  - Process aborted, now German e.V. planned
- Steering committee +
  - Project planning committee
  - Architecture committee
  - Quality committee
- Since 2017: German eG (eingetragene Genossenschaft)



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  - To develop open source software for the energy sector
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## oK 3 / 7: Intellectual Property

- Open source license
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- Different types of membership
  - Driver members
  - User members
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- Examples of members
  - Driver members: Distribution Service Operators (DSOs), e.g.
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# Challenges for User Consortia

- Market size is too small to be sustainable



# Dysfunctions of User Foundations

- Over-reliance on one provider creates lock-in

# Review / Summary of Session

- User foundations
  - Definition and purpose
  - Economics and governance
- Example user foundations
  - Kuali foundation
  - openKONSEQUENZ

# Thank you! Questions?

**[dirk.riehle@fau.de](mailto:dirk.riehle@fau.de) – <http://osr.cs.fau.de>**

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- Contributions
  - ...

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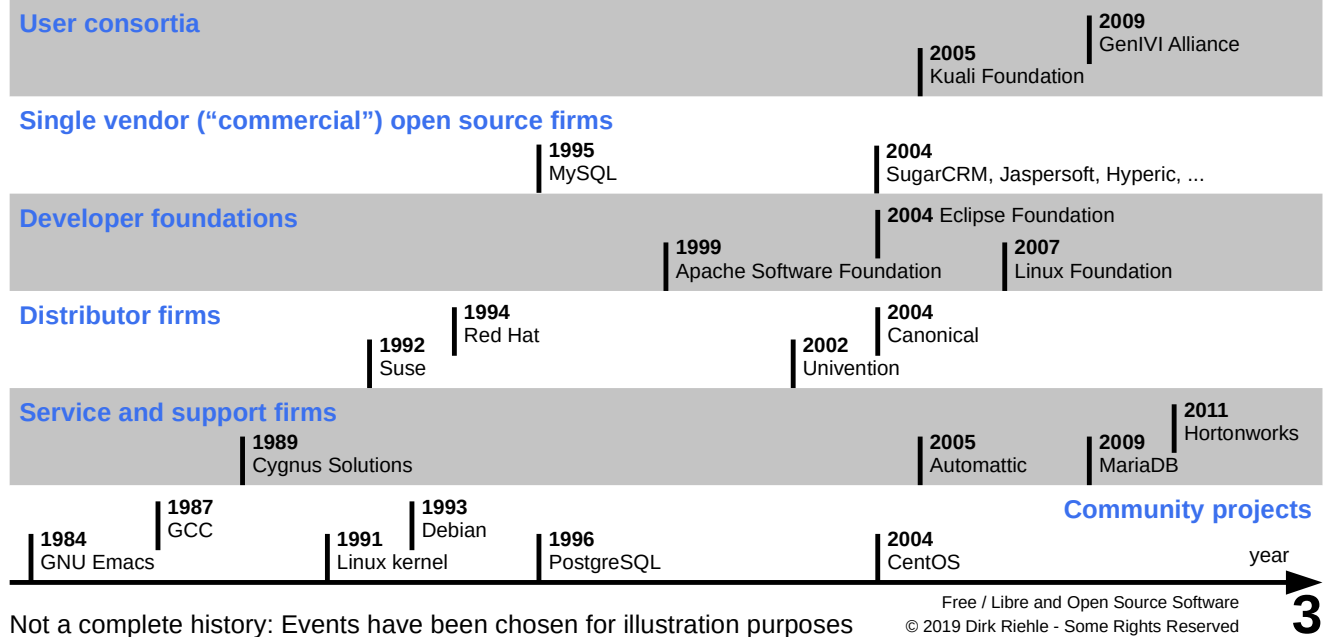
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It is Friedrich-Alexander University Erlangen-Nürnberg – FAU, in short.  
Corporate identity wants us to say “Friedrich-Alexander University”.

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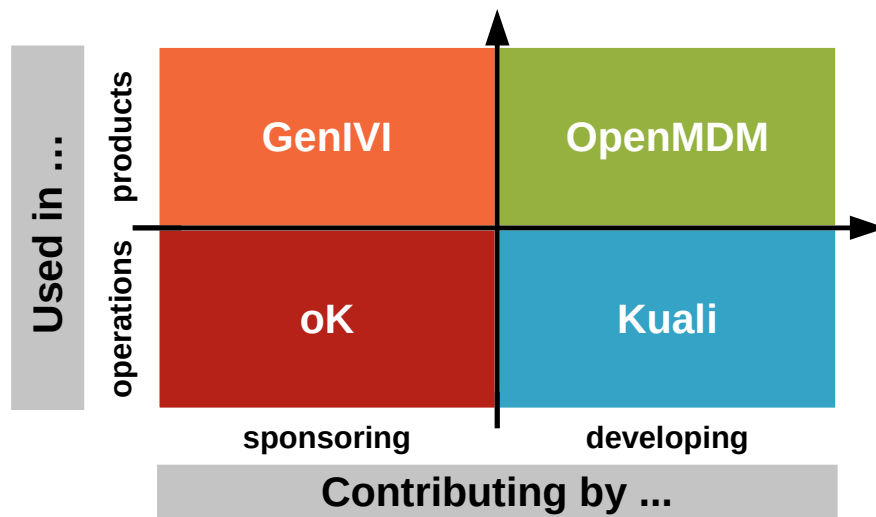
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Free / Libre and Open Source Software  
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## From a Single to Multiple Vendors

**Single Vendor**

SV



**Multiple Vendors**

SV1

SV2

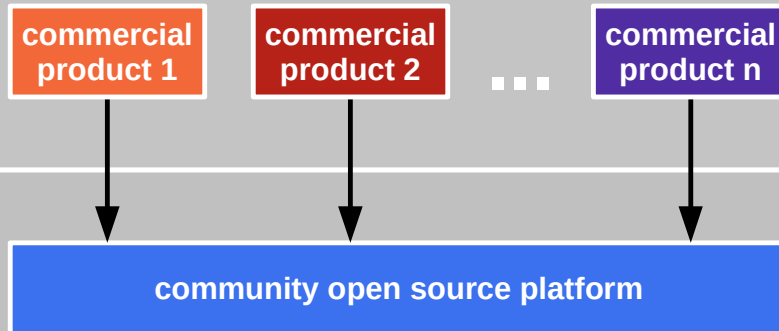
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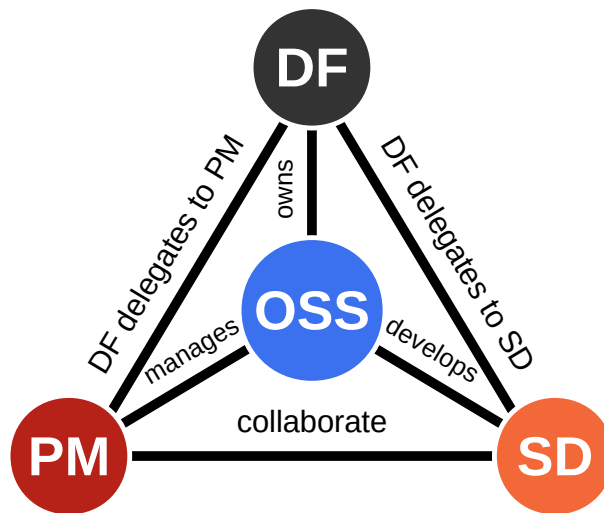
### Community Open Source Software



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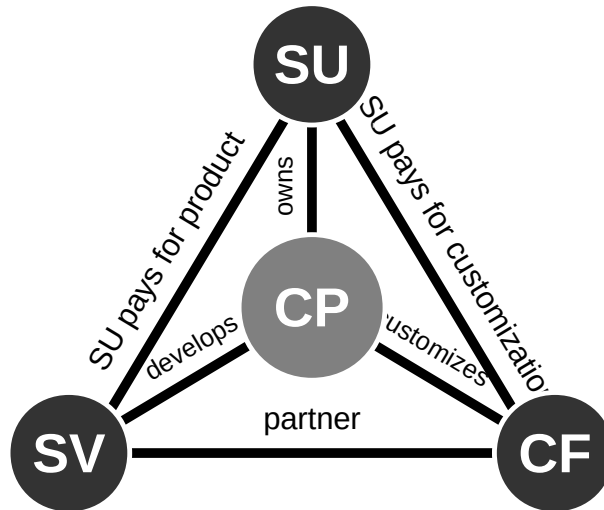
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## Prometheus Foundation

- Organization
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## Cost and Risks to User Companies

- **Single Vendor Model**

- **Costs**
  - **License and maintenance fees**
  - Customization fees
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- **Risks**
  - Product dies
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- **Benefits (unclear)**
  - Less hassles?

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## Variants of User Consortia

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- Governance: Members
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DR

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  - ...