

Research and Startup

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COSS D02

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Agenda

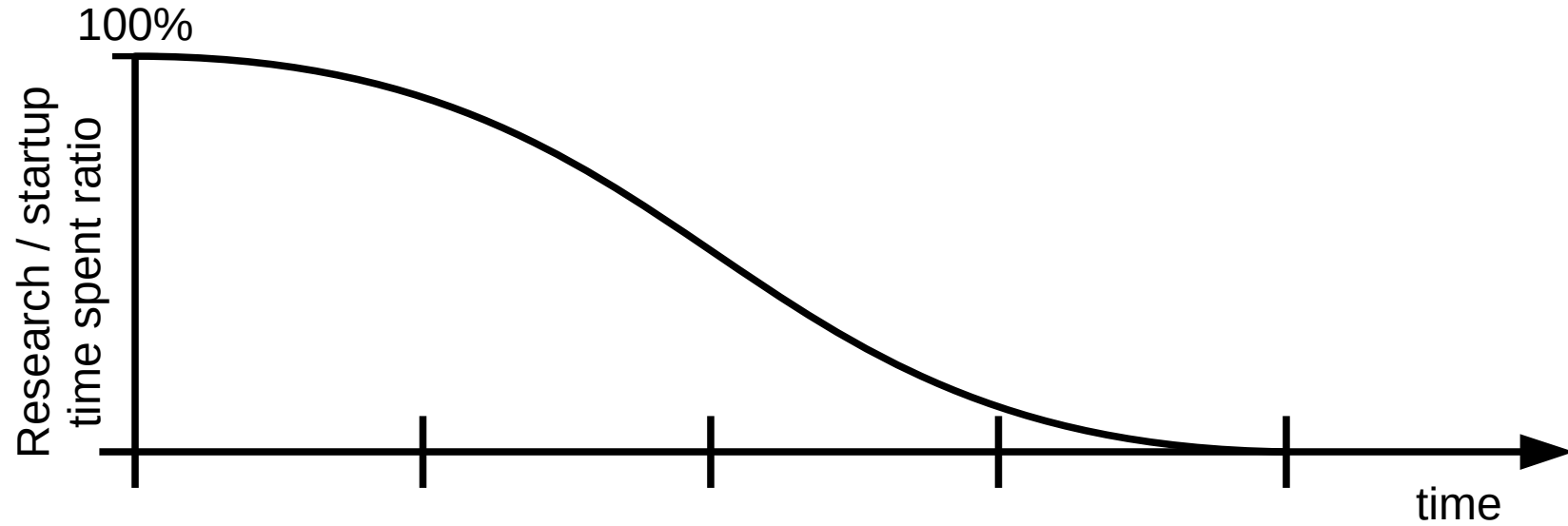
1. Research vs. startup
2. Project management
3. Lead programming
4. Open source strategy
5. Getting users
6. Getting contributions

1. Research vs. Startup

Goal Conflict

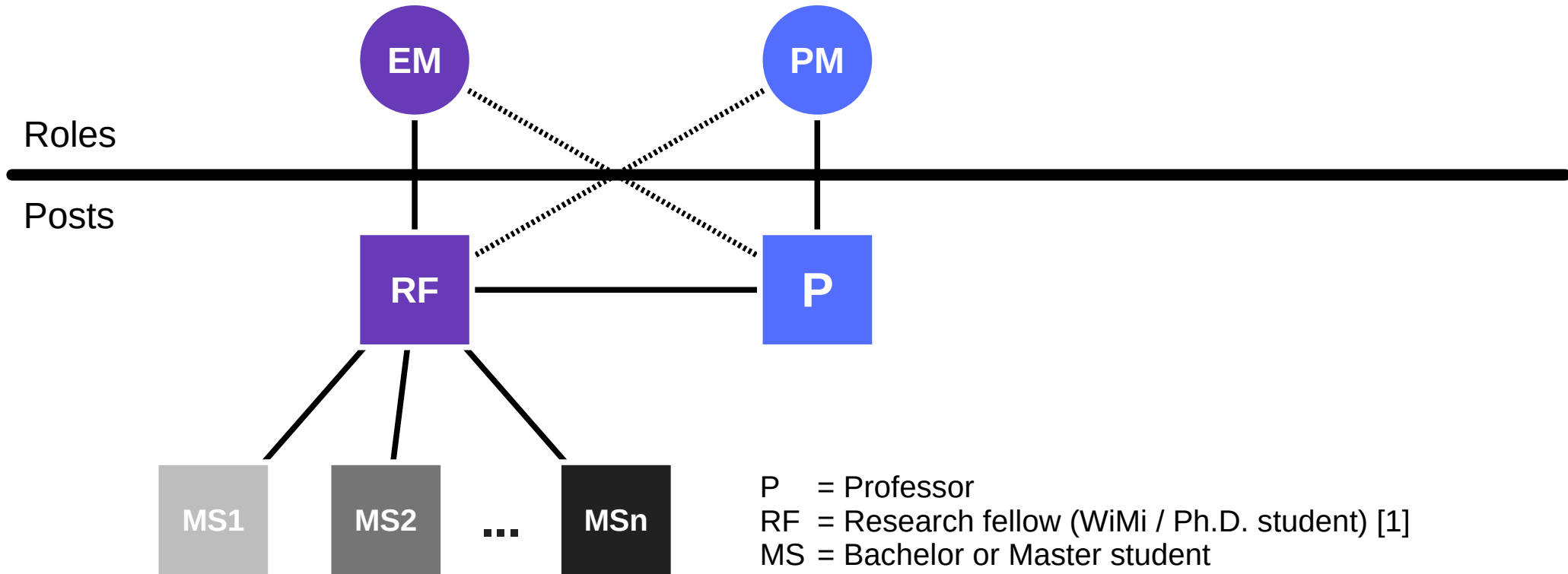
- Research
 - Desired output
 - Research papers
 - A dissertation
- Startup
 - Desired output
 - Software product
 - A startup

Resulting Time Allocation



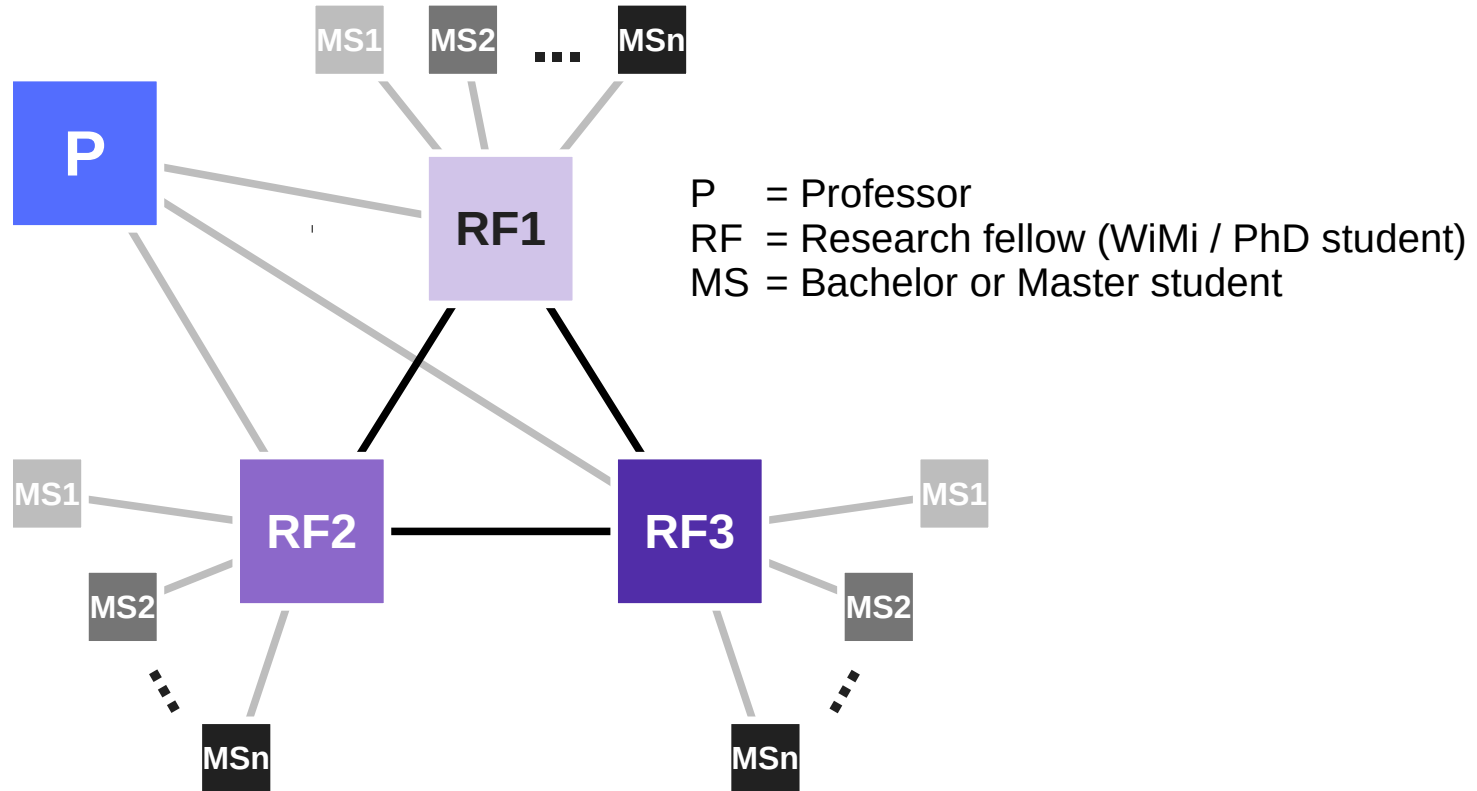
2. Project Management

The Solo Founder Model



[1] The research fellow / PhD students acts as “lead programmer”

The Peer Group Model



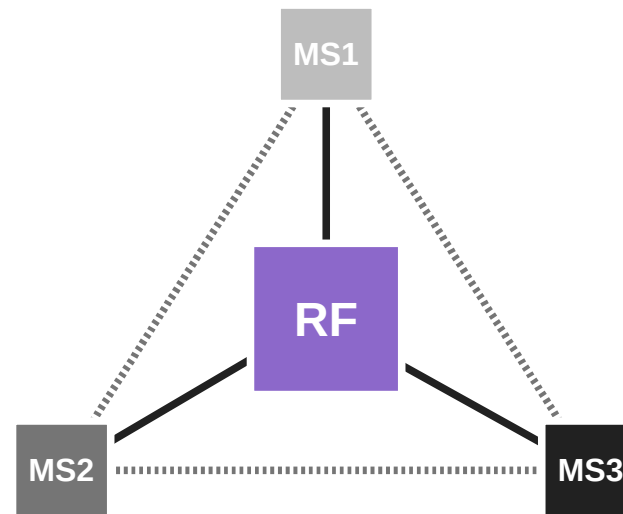
End of Project

- Research project finished
- Startup created (or failed)

3. Lead Programming

Lead Programmer [1]

- A lead programmer
 - Is an engineer who leads the development of a component / system
 - In case of solo founder: The system
 - In case of peer group: A key component
 - W.r.t. the component, is responsible for maintaining
 - Product vision and getting the features done
 - Architectural integrity and code quality
 - Manages other people as they contribute to the component
 - In the beginning, they write most of the code themselves
 - Later, they review and integrate code more than they write
- Other / helper engineers are
 - Students at the university (e.g. Master thesis students)
 - Open source volunteers



[1] A pun on Mills' "chief programmer teams"

Lead Programmer / Helper Engineer Collaboration

- Lead programmer provides feature
 - If necessary breaks it down into tasks
 - Assigns tasks or waits for volunteers
- With helper, discusses design and implementation
 - Helps break down work into tasks / increments
 - Ideally, discussion is public (in open source anyway)
- In multiple increments, reviews and merges code
 - Helper provides sufficiently small commit
 - Lead programmer reviews, comments, integrates
- Until feature is fully implemented

Q

qdacity

🏠 Project overview

📁 Repository

🔖 Issues

134

List

Boards

Labels

Service Desk

Milestones

🔗 Merge Requests

1

📋 Requirements

🔗 CI / CD

🔒 Security & Compliance

🔧 Operations

📦 Packages & Registries

📊 Analytics

📖 Wiki

📄 Snippets

👤 Members

⚙ Settings

⏪ Collapse sidebar

🔖 Professorship of Open Source Software > QDacity > qdacity > Issues

Open 134

Closed 560

All 694

📡

📅

🔗

📄

Edit issues

New issue

Recent searches ▾

Search or filter results...

Created date ▾

⌵

Add new Requirement Specification View

0 of 2 tasks completed

#700 · opened 1 week ago by Julia

Doing

0

updated 2 days ago

Update to Endpoint API to use Cloud Endpoints Portal

#699 · opened 2 weeks ago by Julia

Backend

To Do

0

updated 2 weeks ago

Save Document on switch between Text- & Coding Editor

#698 · opened 1 month ago by Julia

Bug

Frontend

To Do

0

updated 1 month ago

Vertically center star icon

#695 · opened 6 months ago by Andreas Kaufmann

Coding Editor

Frontend

To Do

0

updated 6 months ago

Saturation Metric Maximum

#694 · opened 7 months ago by Andreas Kaufmann

Backend

Bug

To Do

0

updated 7 months ago

Add symbol for codebookentry to the code status bar

#693 · opened 7 months ago by Julia

Frontend

Nice to have

0

updated 7 months ago

Implement Lombok to support a better code overview?

#692 · opened 8 months ago by Julia

Backend

0

updated 7 months ago

Save state of Code System

#690 · opened 8 months ago by Julia

Backend

Coding Editor

Frontend

0

updated 8 months ago

Notify about not-saved code book entries

#689 · opened 8 months ago by Julia

Coding Editor

Frontend

0

updated 8 months ago

Delete coding easier

#688 · opened 8 months ago by Julia

Coding Editor

Feature

Frontend

0

updated 8 months ago

Down arrow key to change code segment

#687 · opened 8 months ago by Julia

Coding Editor

Feature

Frontend

0

updated 8 months ago

Add Code by Drag'n'Drop

#686 · opened 8 months ago by Julia

Coding Editor

Feature

Frontend

0

updated 8 months ago

Code System Search delete button

#685 · opened 8 months ago by Julia

Feature

Frontend

0

updated 8 months ago

Better Solution for CodeIDs

#684 · opened 9 months ago by Julia

Backend

Coding Editor

0

updated 9 months ago

Code color inherited from category

0

⏪ Collapse sidebar

Q qdacity

Project overview

Repository

Issues134

List

Boards

Labels

Service Desk

Milestones

Merge Requests1

Requirements

CI / CD

Security & Compliance

Operations

Packages & Registries

Analytics

Wiki

Snippets

Members

Settings

Collapse sidebar

Professorship of Open Source Software > QDAcTy > qdacity > Issue Boards

Development ▾ Search or filter results...

Show labels Edit board Add list ▾ Add issues

Open570+

Add symbol for codebookentry to the code status bar

Frontend Nice to have

#693

Implement Lombok to support a better code overview?

Backend

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Save state of Code System

Backend Coding Editor Frontend

#690

Notify about not-saved code book entries

Coding Editor Frontend

#689

Better Solution for CodeIDs

Backend Coding Editor

#684

Problems with Chrome

Bug Frontend Low Priority

#678

Delete coding easier

Coding Editor Feature Frontend

#688

Down arrow key to change code segment

Coding Editor Feature Frontend

#687

To Do660+

Update to Endpoint API to use Cloud Endpoints Portal

Backend

#699

Save Document on switch between Text- & Coding Editor

Bug Frontend

#698

Vertically center star icon

Coding Editor Frontend

#695

Saturation Metric Maximum

Backend Bug

#694

Code color inherited from category

Coding Editor Feature Frontend

#683

Duplicate code locations

Bug Coding Editor Frontend

#682

Updating coding brackets on rename

Bug Coding Editor Frontend

#681

Crash on switching documents

Bug Coding Editor

#680

Doing40+

Add new Requirement Specification View

#700

List support in Editor

Backend Feature

#645

Fix acceptance tests for pipeline

Dev Feature Refactoring

#673

Wiki Documentation

Dev Documentation Research

#633

In Review70+

Add sync for Meta Model attributes

#657

Finer grained merge

Feature Frontend

#666

Editable Conflict

Feature Frontend

#667

Sync positions in diff views for theirs and mine

Feature Frontend

#669

Deploying the NLP service

Backend Dev

#664

Remove coding when offline

Feature Frontend

#611

No Updates Before Sync Finished

Feature Frontend

#591

Closed

Restructure war folder

Frontend Refactoring

#86

Removing Codings

Bug Coding Editor Frontend

#274

getCurrentUser not working

Backend Bug

#327

Mixed Content

Bug Frontend

#169

General Refactoring

Frontend Refactoring

#171

Update App Engine SDK to 1.

Dev

#318

Add servlet for SSL challenge

Backend Feature

#270

Landing Page

Feature Frontend

#188

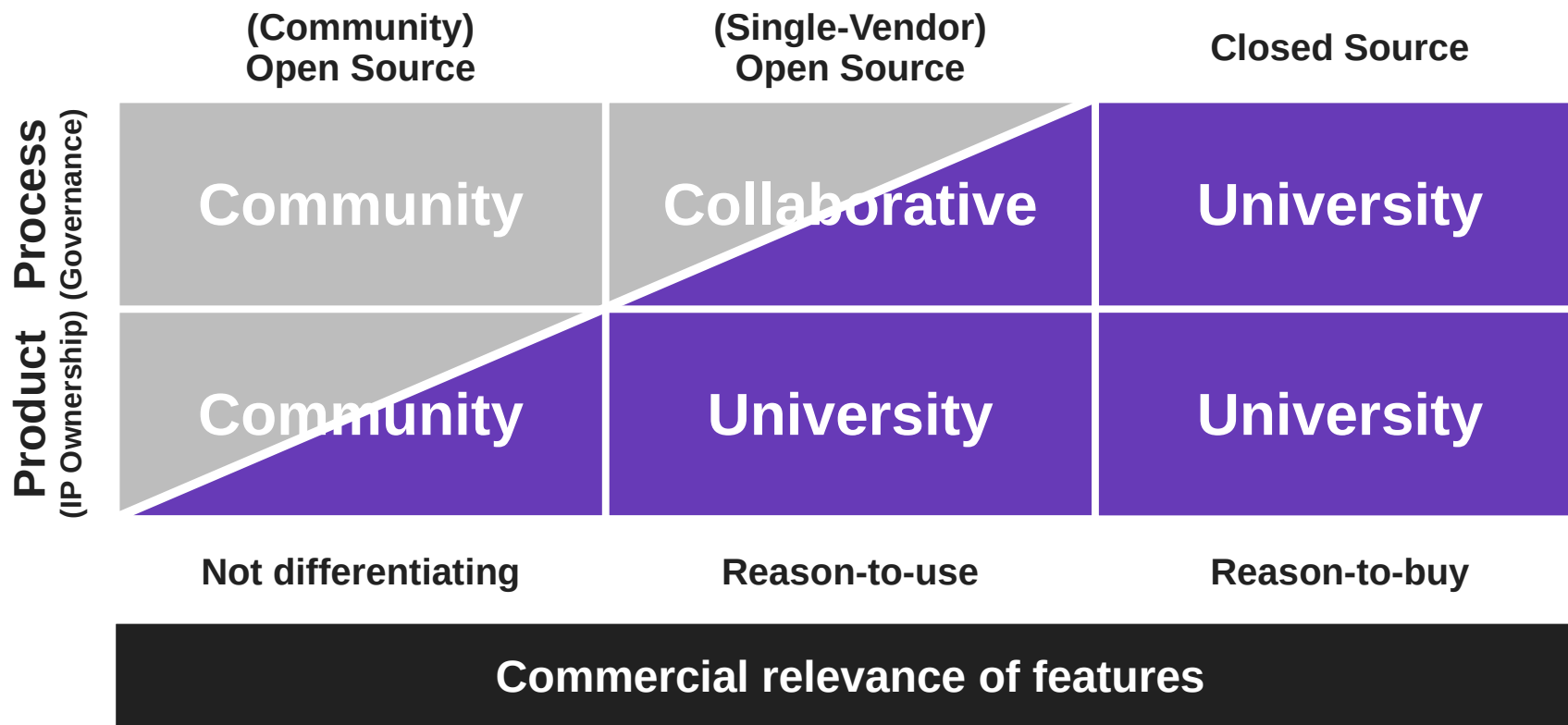
No Delete Btn for Validation

Frontend Refactoring

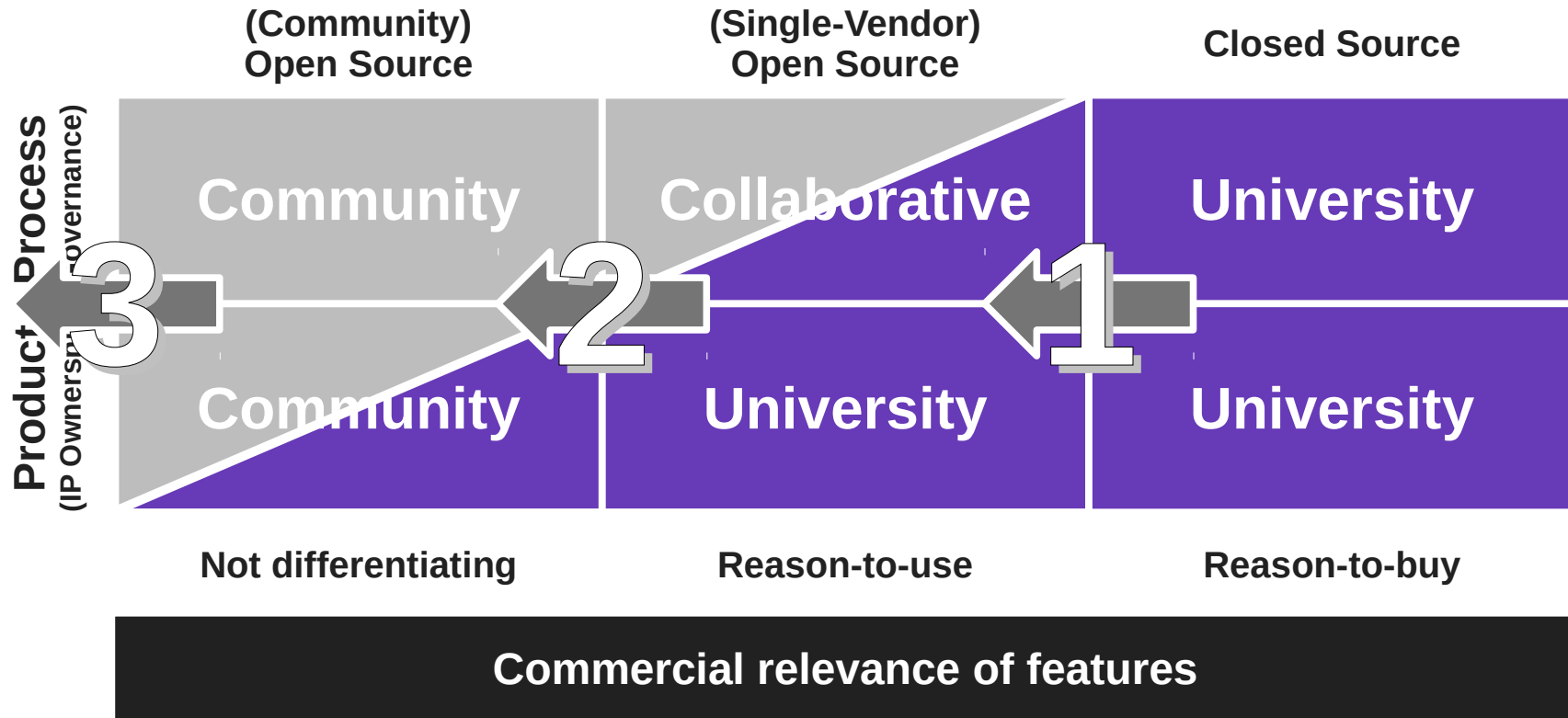
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4. Open Source Strategy

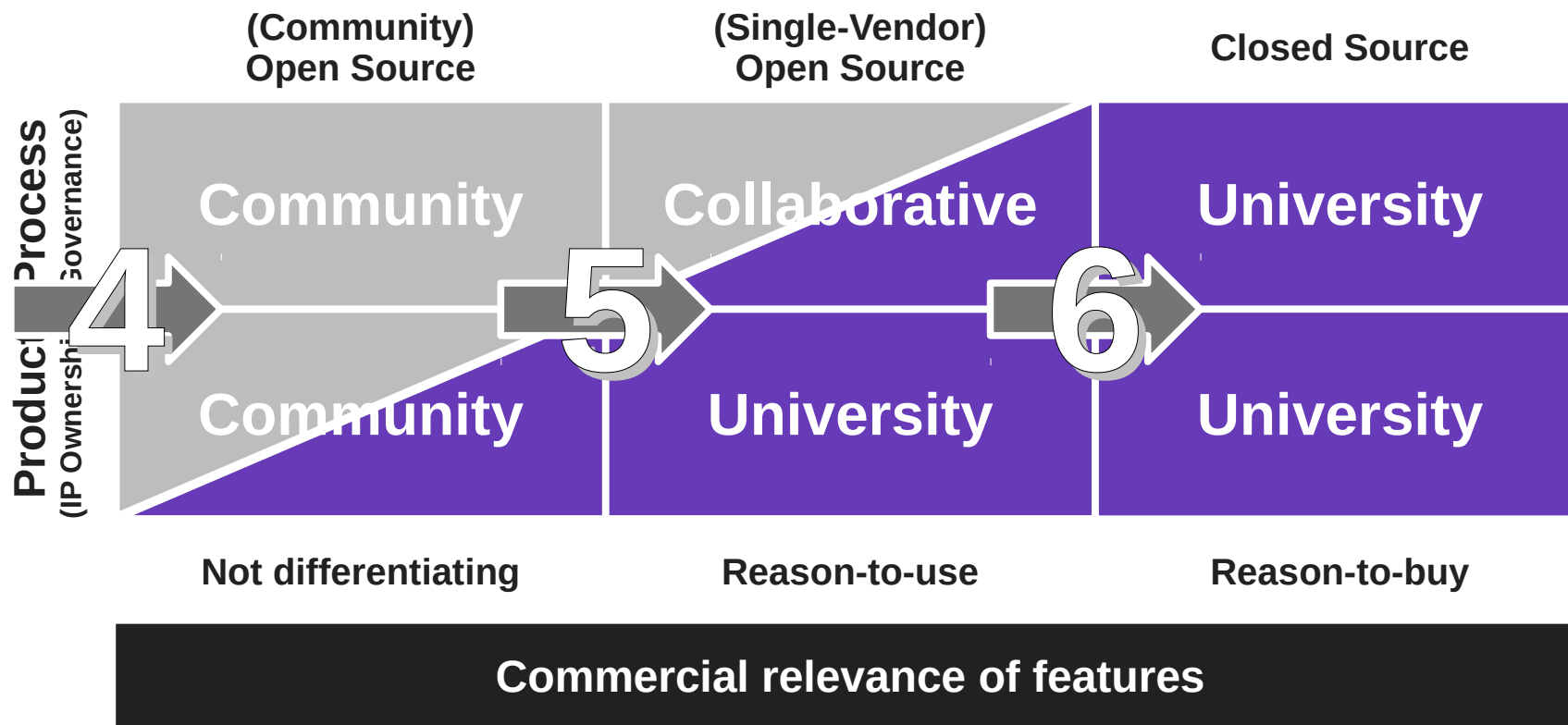
Open Source Community vs. University / Company



Pushing out Features



Pulling in Features



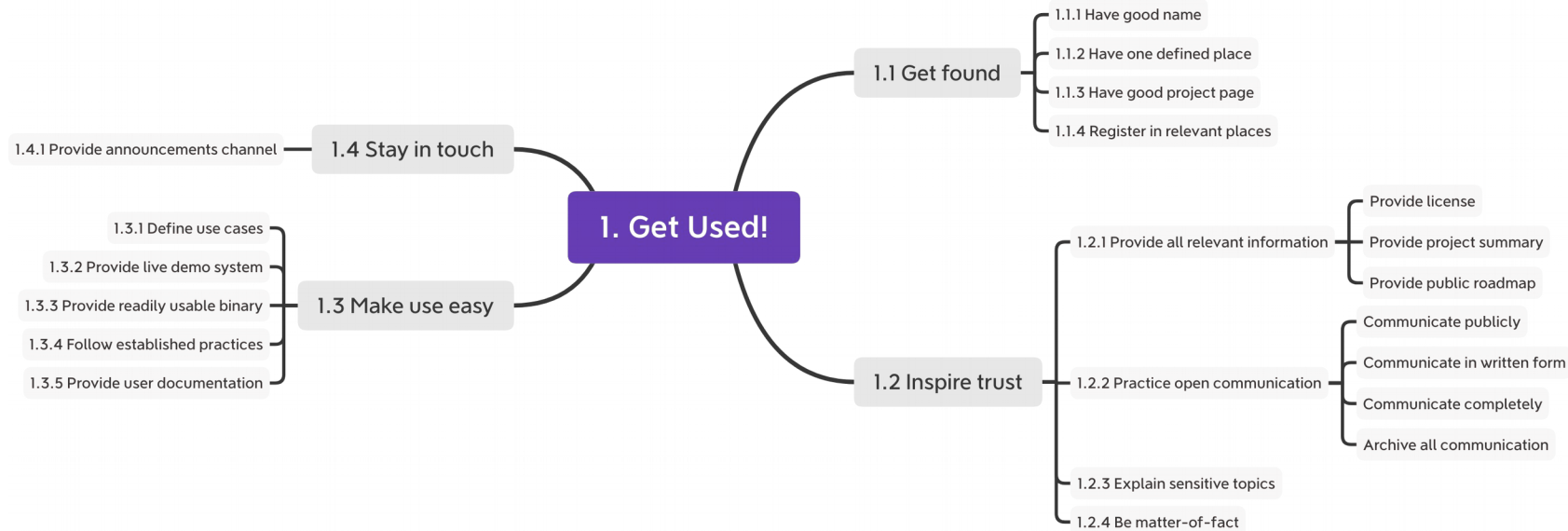
Public Money, Public Code?

- Universities have both a non-profit and commercial part
 - Universities are tasked with research and teaching [1]
 - Universities are also tasked with exploiting their innovations
- It is the university's choice what to give away for free

[1] And spending inordinate amounts on useless administrative matters

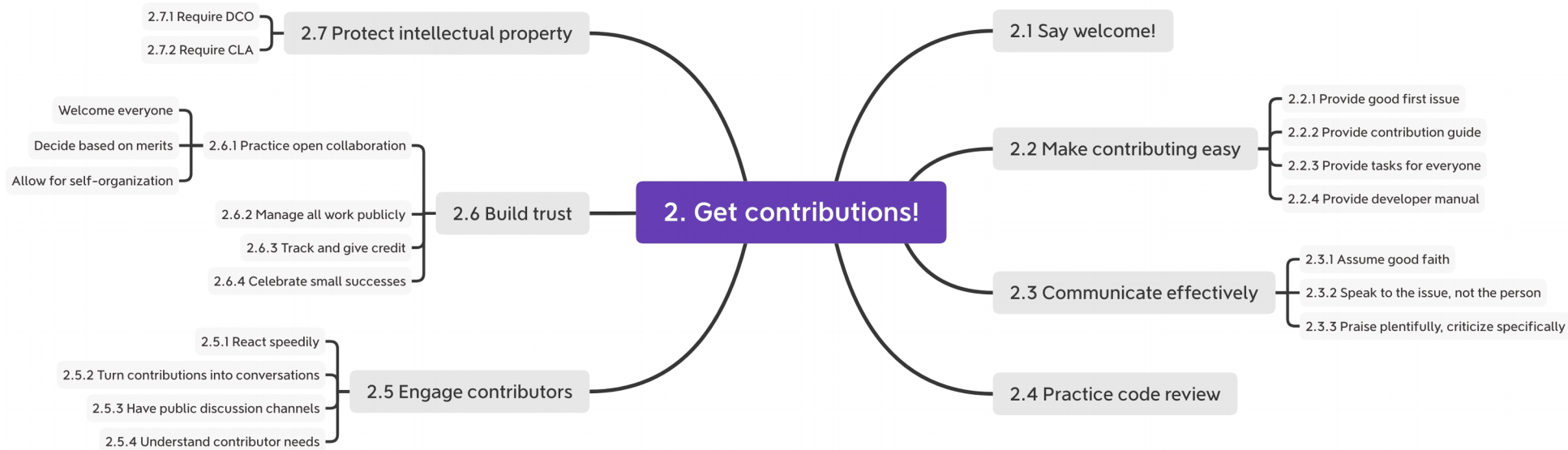
5. Getting Users

Best Practices for Setting-up Shop and Getting Users



6. Getting Contributions

Best Practices for Getting Contributions



Summary

1. Research vs. startup
2. Project management
3. Lead programming
4. Open source strategy
5. Getting users
6. Getting contributions

Thank you! Questions?

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- Contributions
 - None yet