Research and Startup

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COSS D02

Agenda

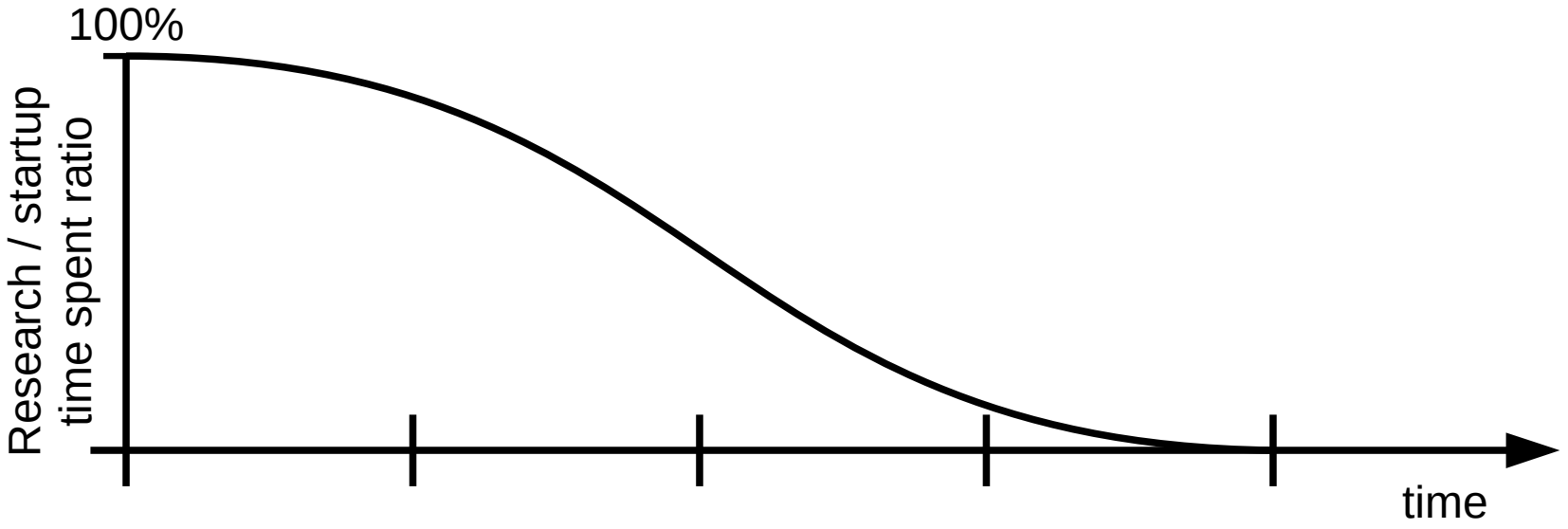
1. Research vs, startup
2. Project management
3. Product management
4. Lead programming
5. Open source strategy
6. Setting-up shop
7. Getting contributions

1. Research vs. Startup

Goal Conflict

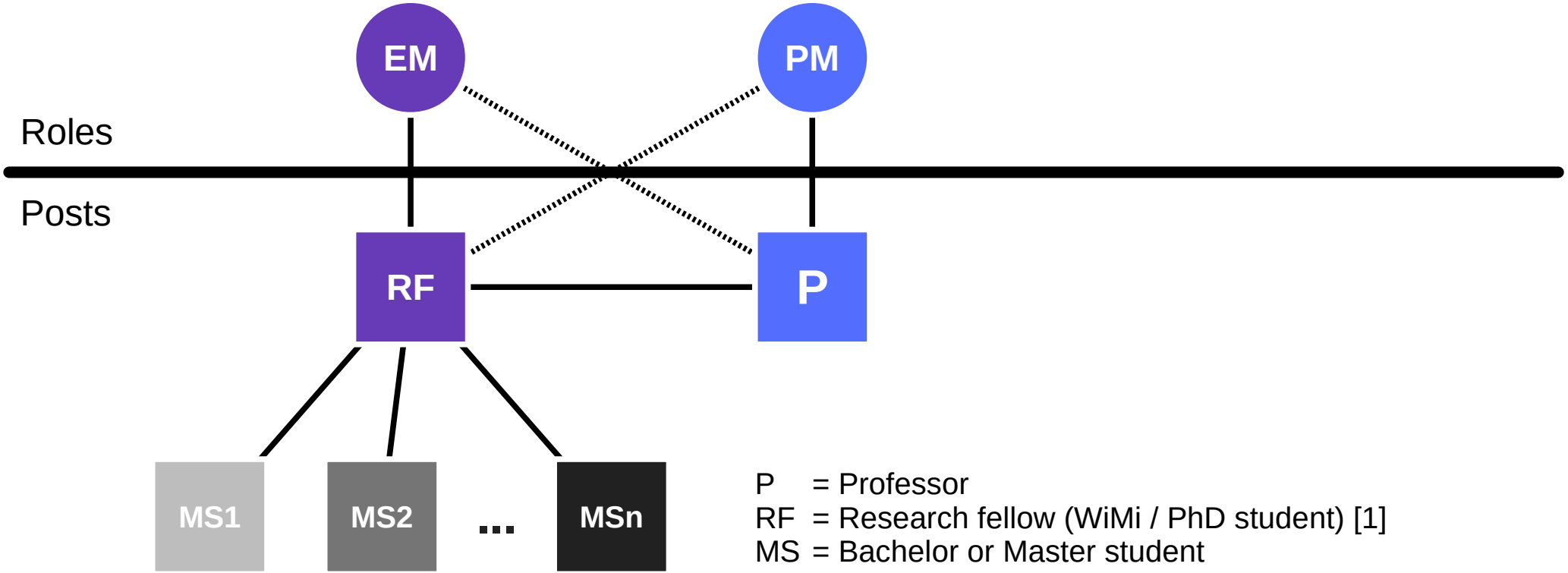
- Research
  - Desired output
    - Research papers
    - A dissertation
- Startup
  - Desired output
    - Software product
    - A startup

Resulting Time Allocation



2. Project Management

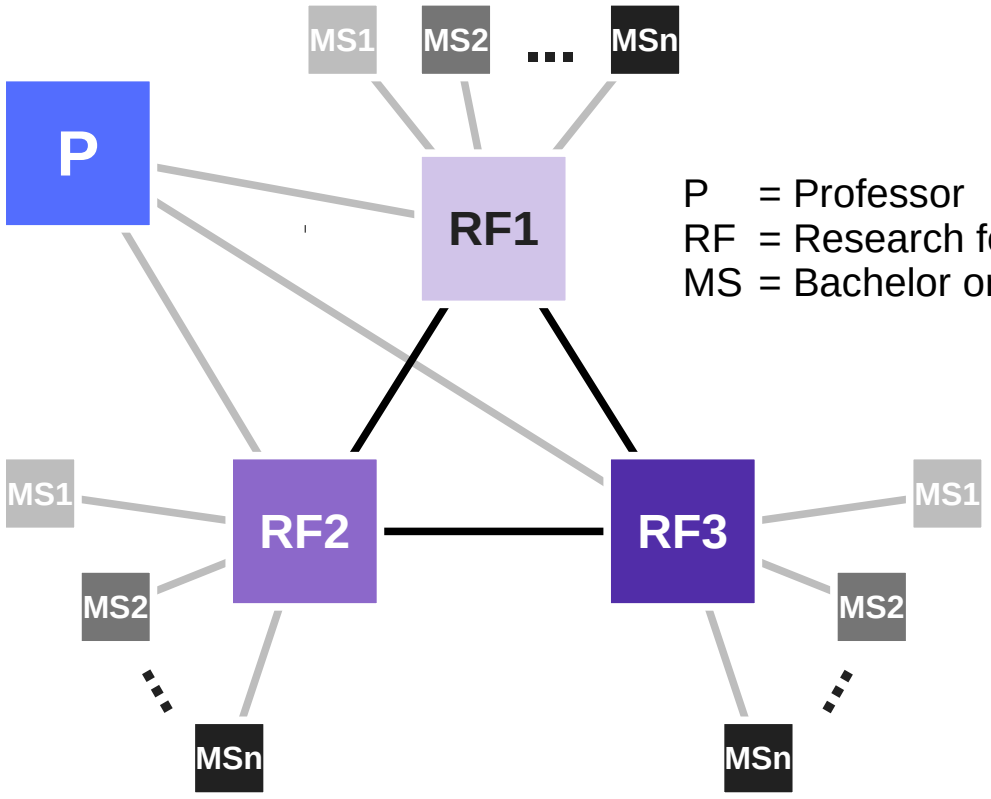
The Solo Founder Model



P = Professor
RF = Research fellow (WiMi / PhD student) [1]
MS = Bachelor or Master student

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

The Peer Group Model



P = Professor
RF = Research fellow (WiMi / PhD student)
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End of Project

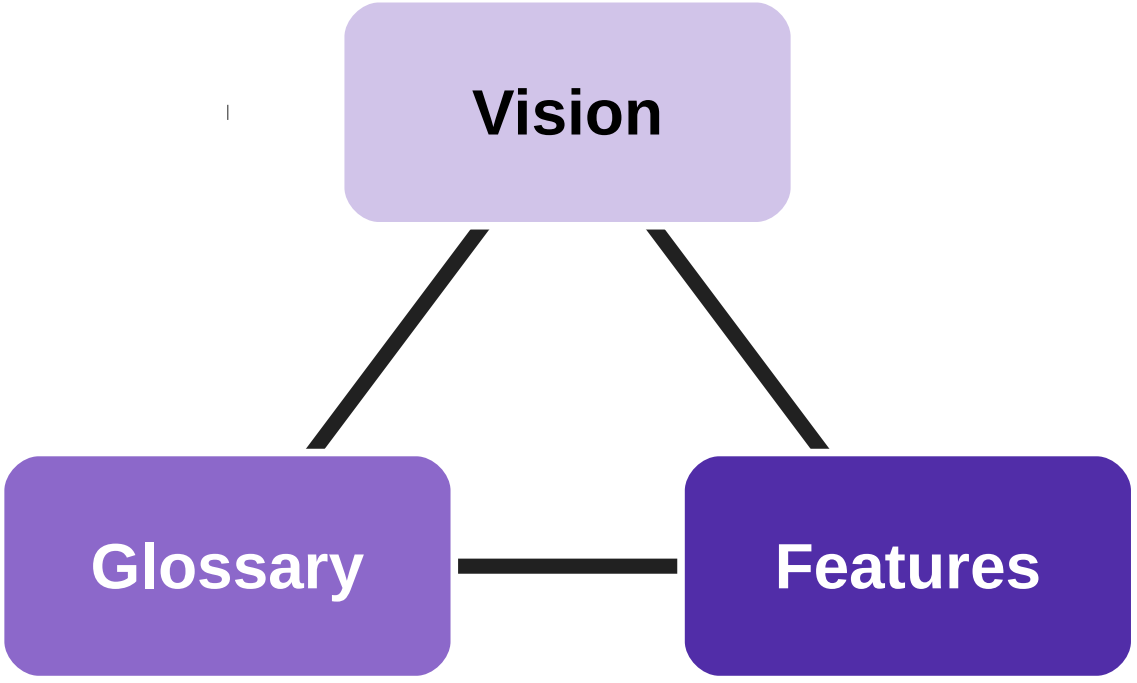
- Research project finished
- Startup created (or failed)

3. Product Management

Who is the Product Manager?

- Research fellow
- Professor

Product Vision, Glossary, and Features



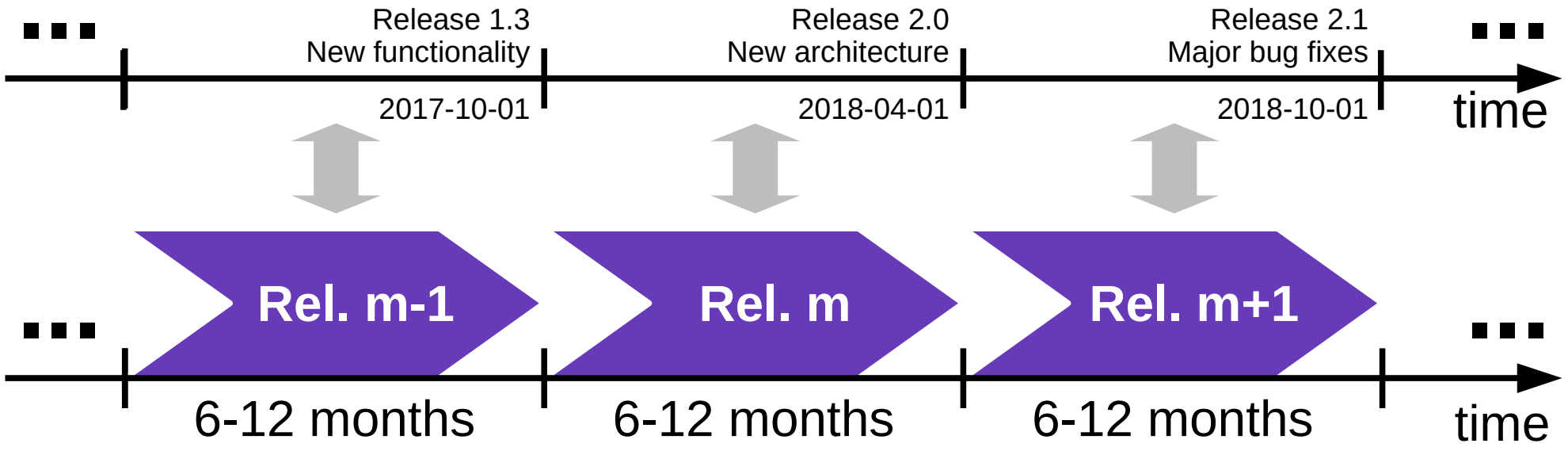
Product Releases

- Product release
  - A deployable product increment
    - That provides new significant business value to market / customer
- Iteration release
  - A demonstratable product increment
    - That serves to gather relevant feedback from market / customer

Product Roadmap

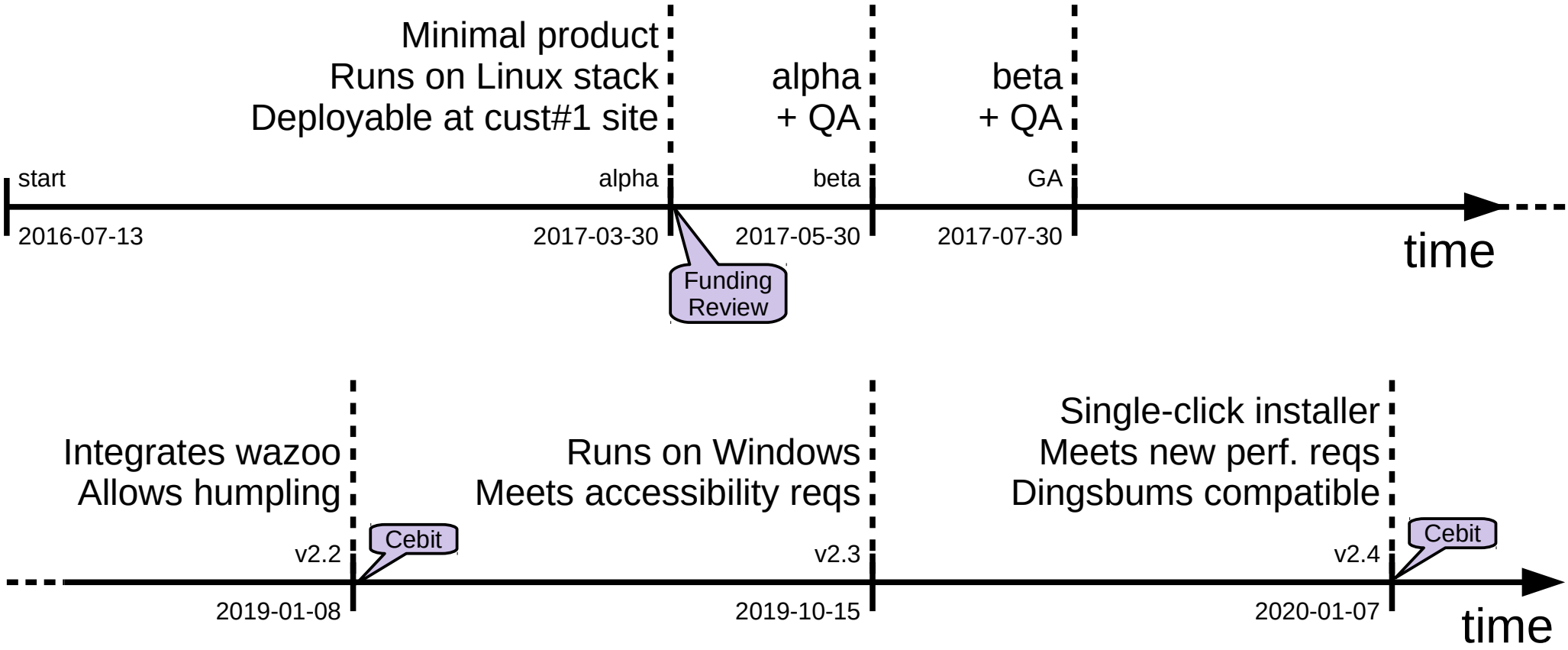
- External roadmap
  - Overview-oriented; few details are provided
  - Serves communication needs
  - Serves external stakeholders
- Internal roadmap
  - As detail oriented as needed (richer than external roadmap)
  - Serves planning and communication needs
  - Serves internal stakeholders

Roadmap as Sequence of Releases [1]



[1] The release rhythm depends on the software's position in the tech. stack

Example Product Roadmap



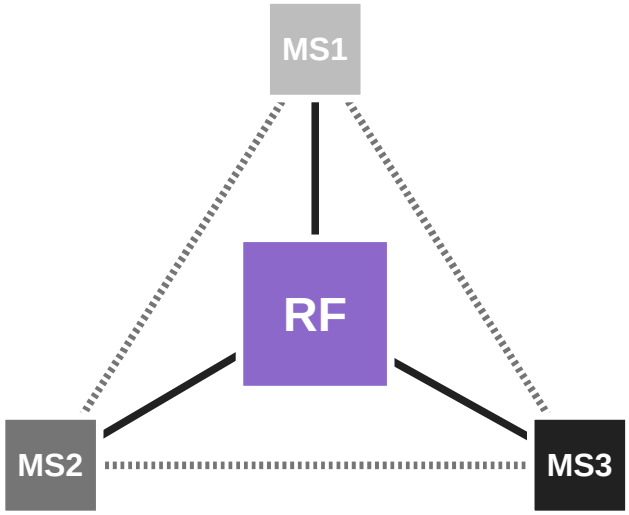
Product Vision, Roadmap, and Release

	Timeframe	Content	Certainty	(Responsible) Owner
Vision	Long-term (3+ years)	High-level ideas	Low	CEO and / or strategic product manager
Roadmap	Medium (1-5 years)	Themes and epics	Medium	Strategic product manager
Release	Short-term (months)	Epics and features	High	Technical product manager

4. 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 of 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

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

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

Development | Search or filter results... | Show labels | Edit board | Add list | Add issues

Open 57 0

Add symbol for codebookentry to the code status bar
Frontend Nice to have
#693

Implement Lombok to support a better code overview?
Backend
#692

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 Do 66 0

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

Doing 4 0

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 Review 7 0

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 Fronten
#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

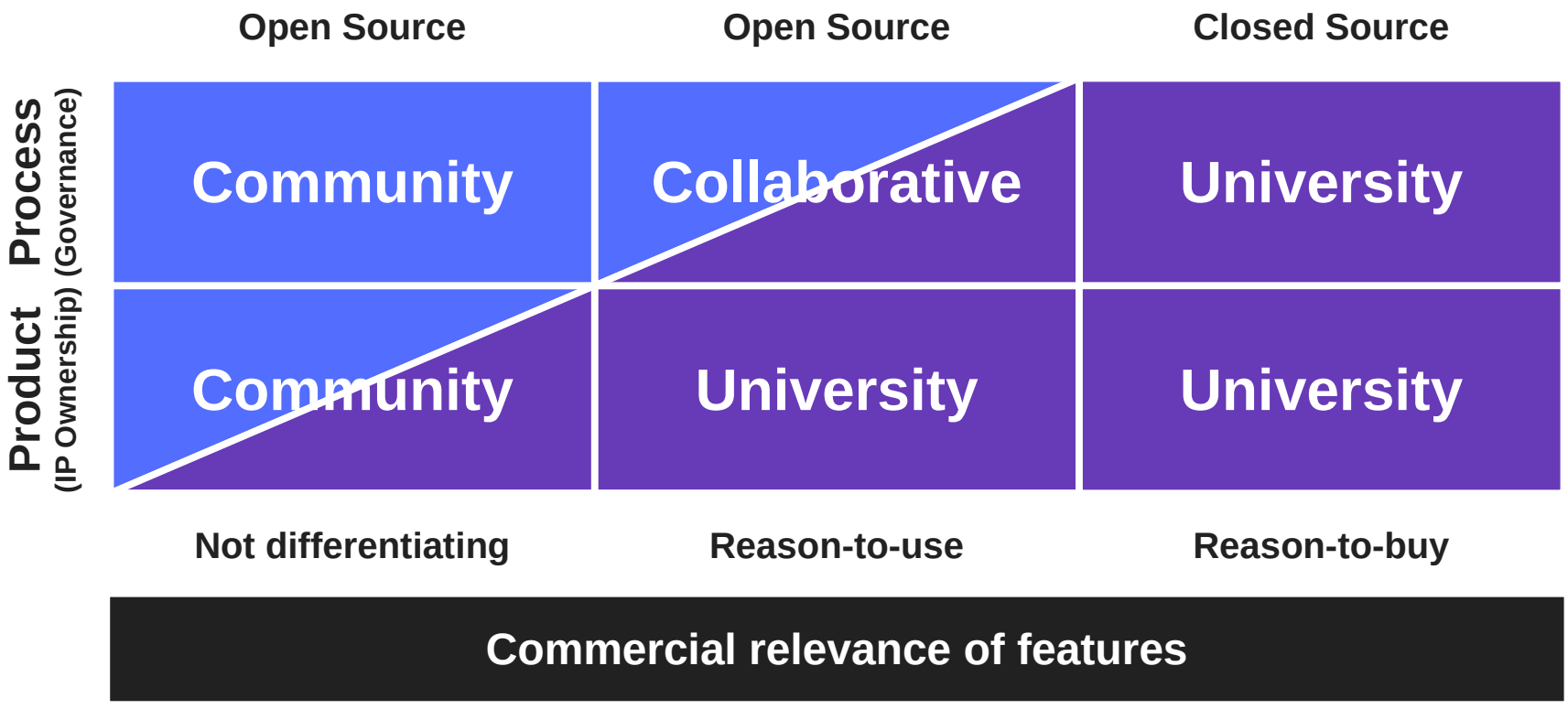
Add servlet for SSL challeng
Backend Feature
#270

Landing Page
Feature Frontend
#188

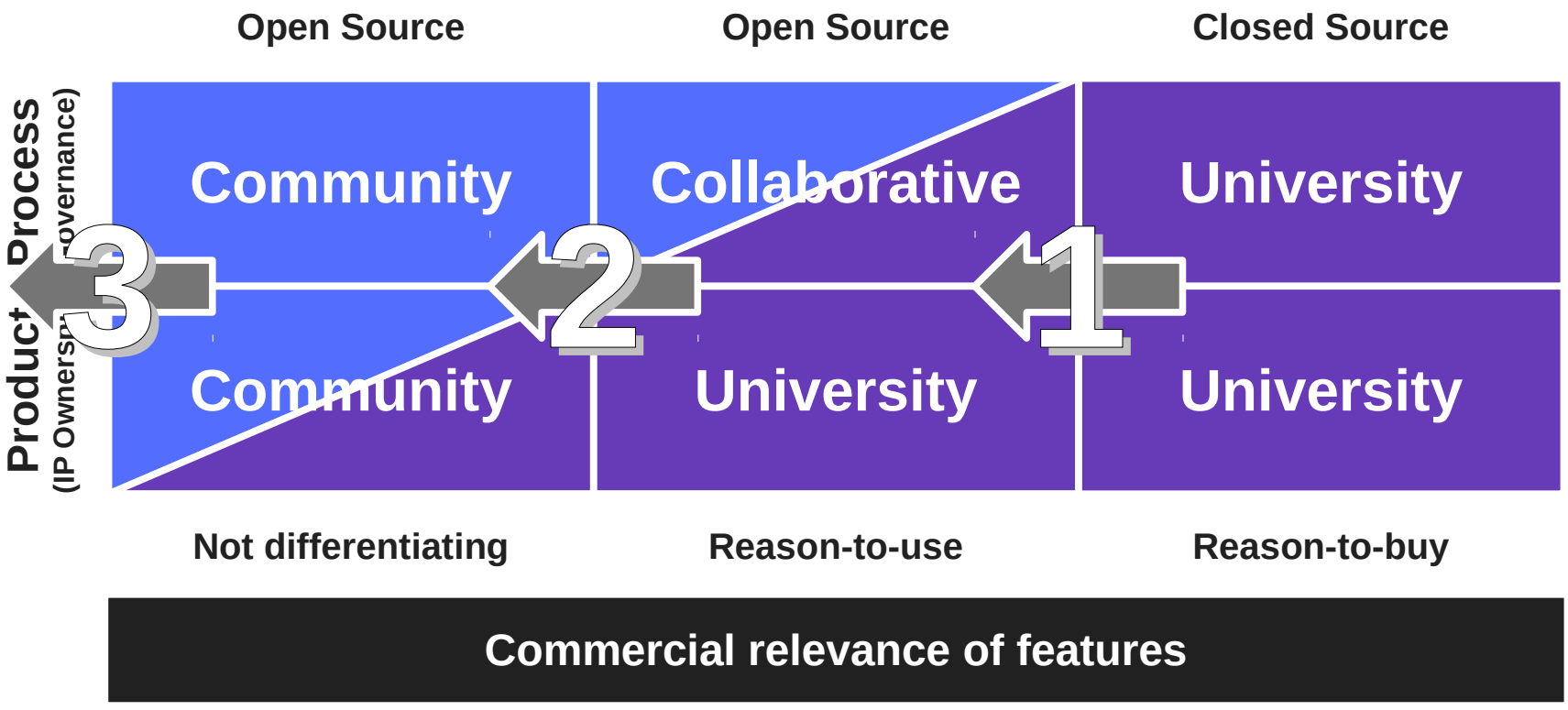
No Delete Btn for ValidationF

5. Open Source Strategy

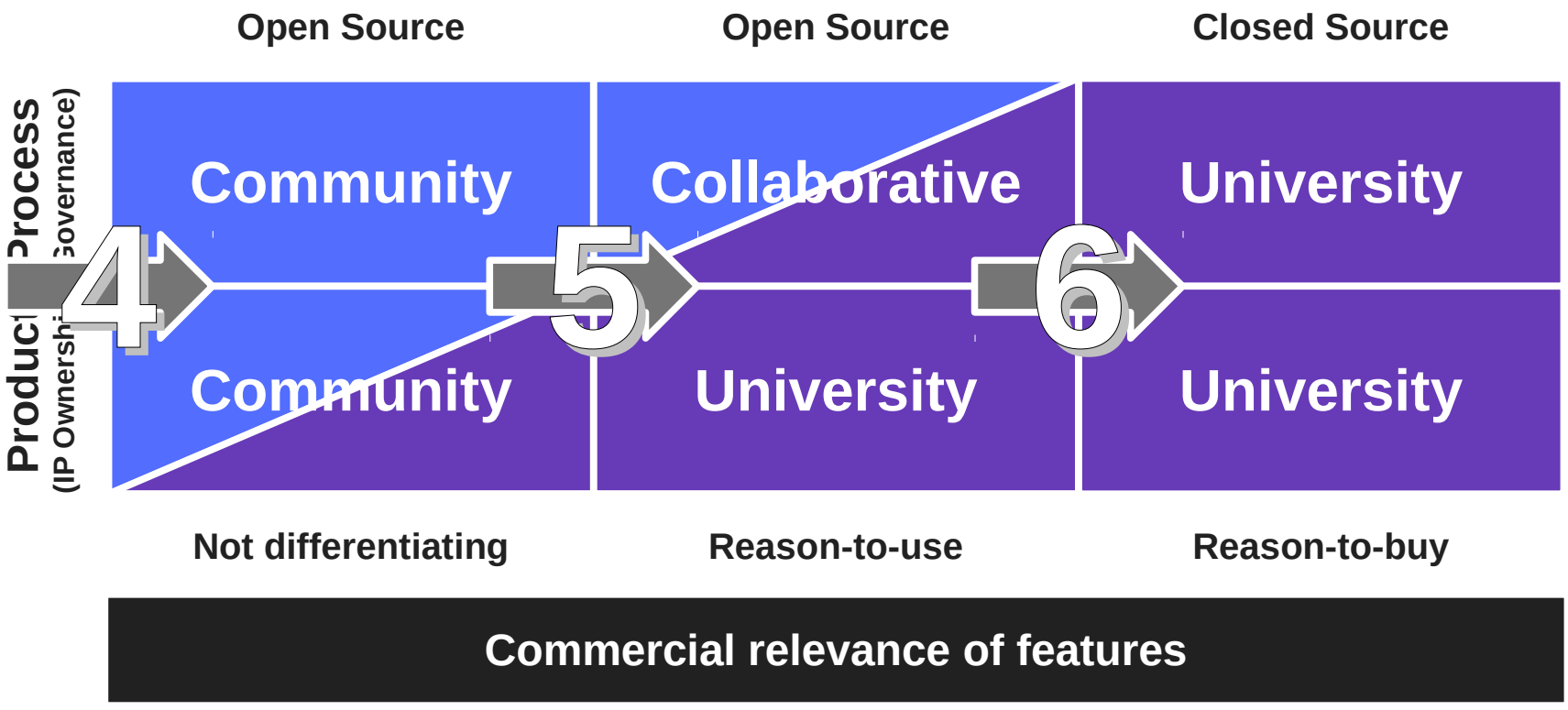
Open Source Community vs. University / Company



Pushing out Features

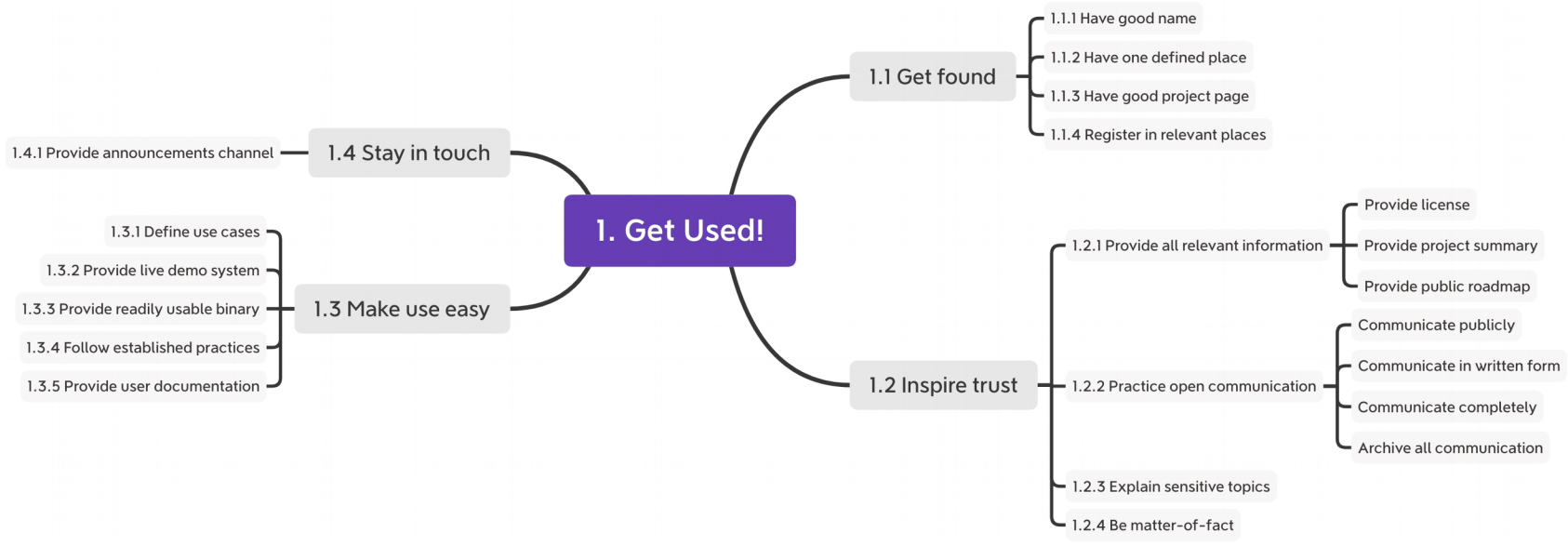


Pulling in Features



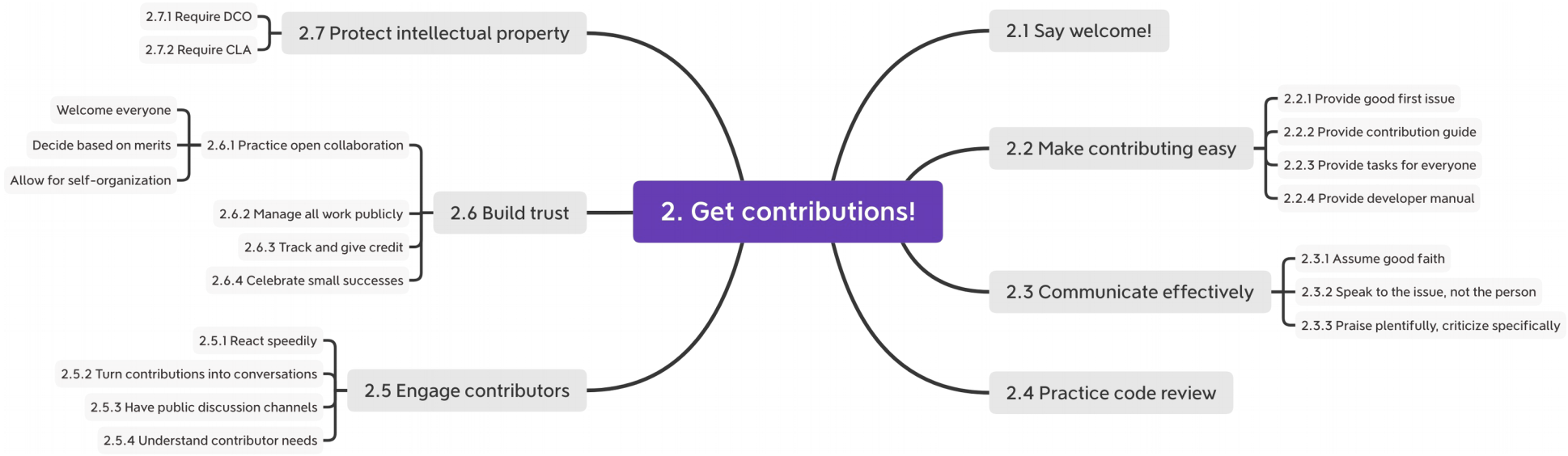
6. Setting-up Shop

Best Practices for Setting-up Shop and Getting Users



7. Getting Contributions

Best Practices for Getting Contributions



Summary

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Thank you! Questions?

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