

Open Source Program Offices

Das "kleine 1x1" des professionellen
Umgangs mit Quelloffenheit

04.09.2024

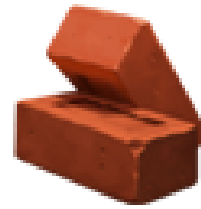
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Markus Tiede 🧑🏫 DSL & IPST - board member @
CH Open + OK @ DINAcon













Organisatorisches



Den Fisch auf den Tisch!

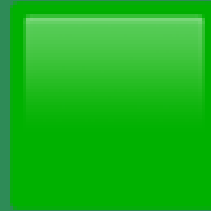
9 - 17 Uhr

1	09.15	-		Begrüßung, Kennenlernen & Einführung OSPOs
2				
3				*Nutzung* von quelloffenen Artefakten
4	10.15	-		1.1
5	11.15	-		1.2
6		~		12
7				
8				*Mitwirken* an Open Source Projekten
9	13.15	-		2.1
10	14.15	-		2.2
11				
12				*Starten* von eigenen Projekten
13	15.15	-		3.1
14	16.15	-		Q&A + Abschluss

< WORK
SHOP
TAGE

 ca. 45' (  ) + 15' 

WST-24-1x1.01



*Wann ist der heutige Workshop
für dich ein Erfolg?*

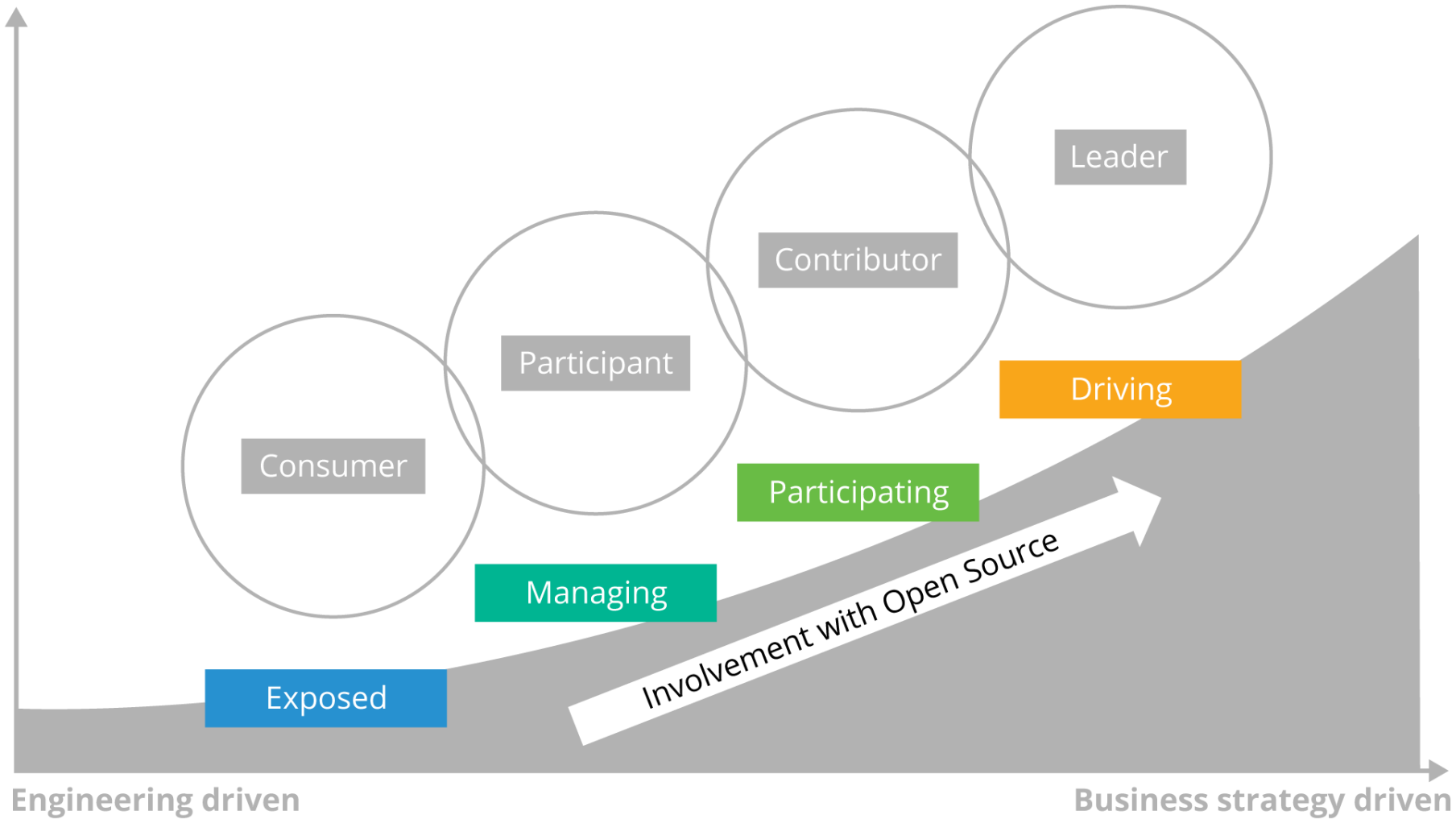




WORK
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TAGE

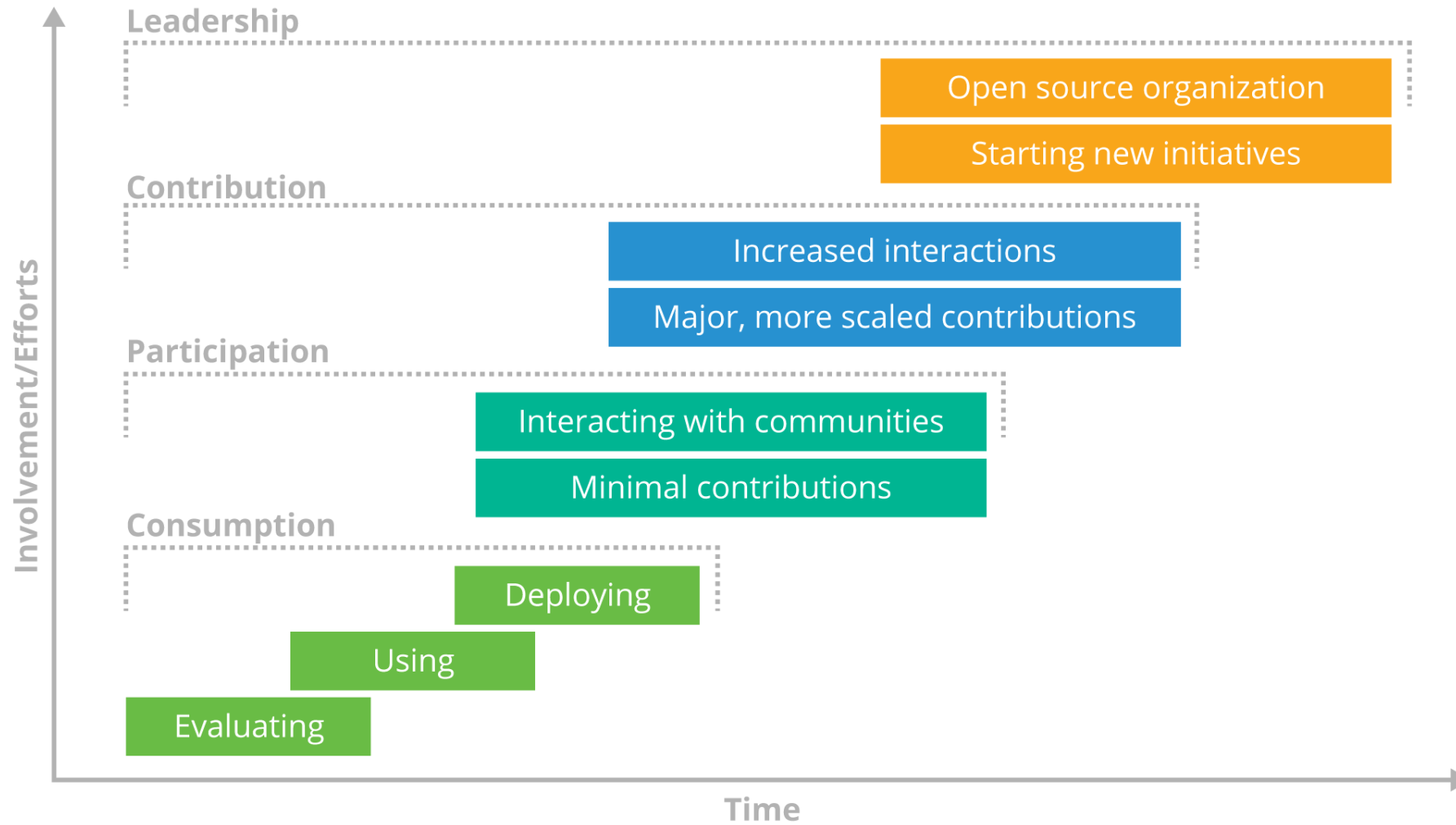


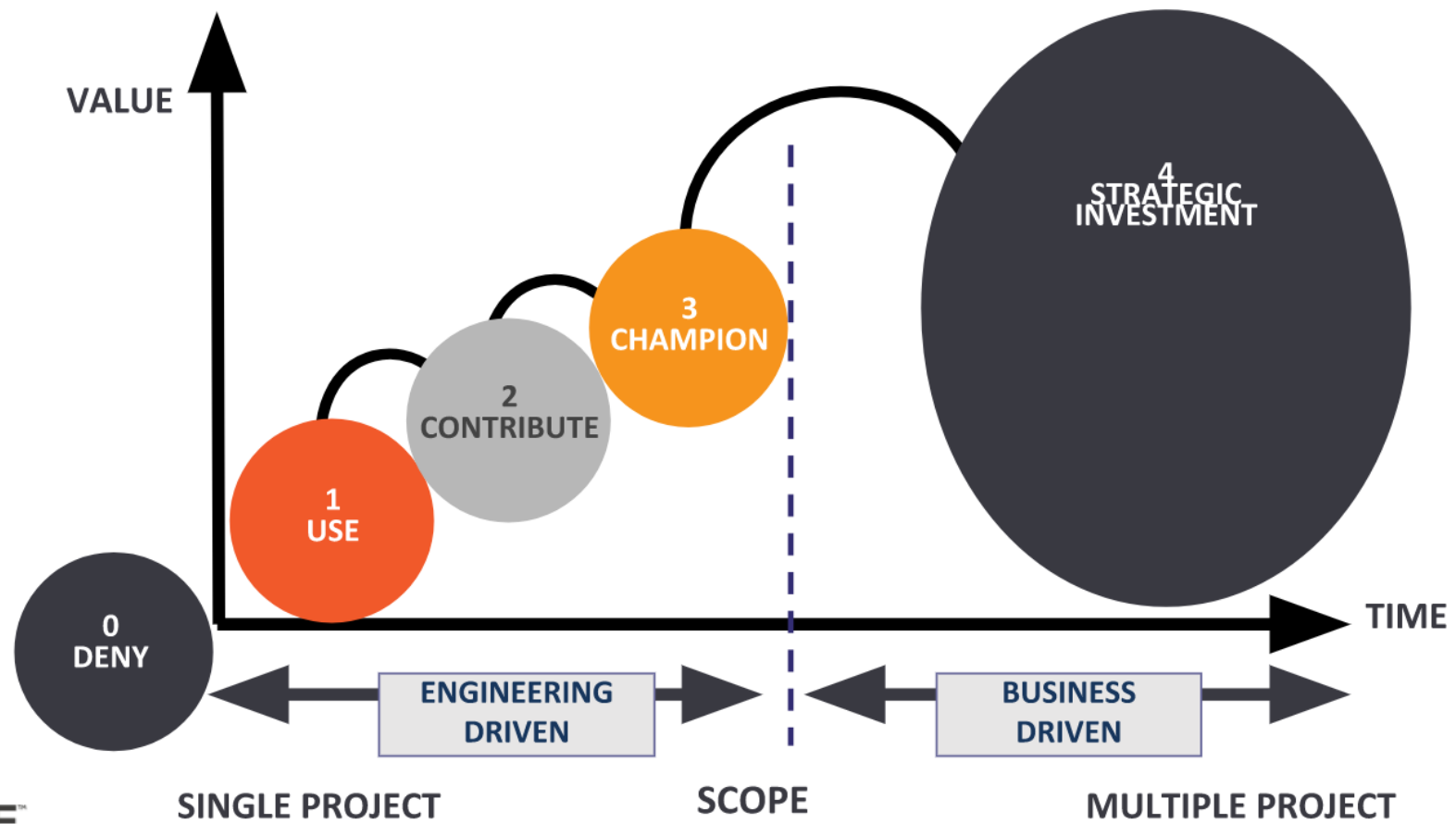
Standorte & Maturitätsmodell(e)



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Climbing the Open Source Ladder





WORKSHOP
TAG



Copyright (c) 2018, Eclipse Foundation, Inc. | Made available under the Eclipse Public License 2.0 (EPL-2.0)

WST-24-1x1.02

Self-Assessment

*Auf welcher Stufe siehst du
deine Organisation und warum?*

..., -1, 0, 0.5, 1, 2, 3, 4



der rote Faden

OSPOs

Open Source Program Offices

[...] center of competency for an organization's open source operations [...]

since 2021





Study on the impact of
Open Source for the
European Commission



The logo features the text "OSPO 101" in a bold, dark blue sans-serif font. The letters are interconnected by a network of dark blue lines and colored circular nodes in shades of teal, light blue, and orange. The nodes are positioned at various points around the letters, creating a sense of connectivity and structure.

OSPO 101

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<https://ospo101.org>

- 1 - Introduction
- 2 - Business Strategy
- 3 - Open Source Program Offices
- 4 - Development Practices
- 5 - Compliance Programs
- 6 - Collaborating with Projects
- 7 - Creating Projects



<https://digital-sustainability.github.io/module-eoss-ospo101/#course-outline>

OSPO ALLIANCE

The logo graphic consists of two overlapping dark blue squares. The top square is slightly offset to the left and top, while the bottom square is offset to the right and bottom. A solid red square is positioned in the center where the two blue squares overlap.

<https://ospo-alliance.org>





Abraham Maslow's Hierarchy of Behavioral Motivation



OW2 Goals to OSS Good Governance

<https://ospo-alliance.org/ggi/introduction/#about-the-good-governance-initiative>



WST-24-1x1.03



*Welches "Vehikel" nutzt ihr für
das Thema Open Source in Eurer
Organisation?*





15'



Den Fisch auf den Tisch!

Open Source (Software)

Einführung





**open source
initiative[®]**

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~ 100+ Open Source Lizenzen 

The Four Freedoms - FSFE

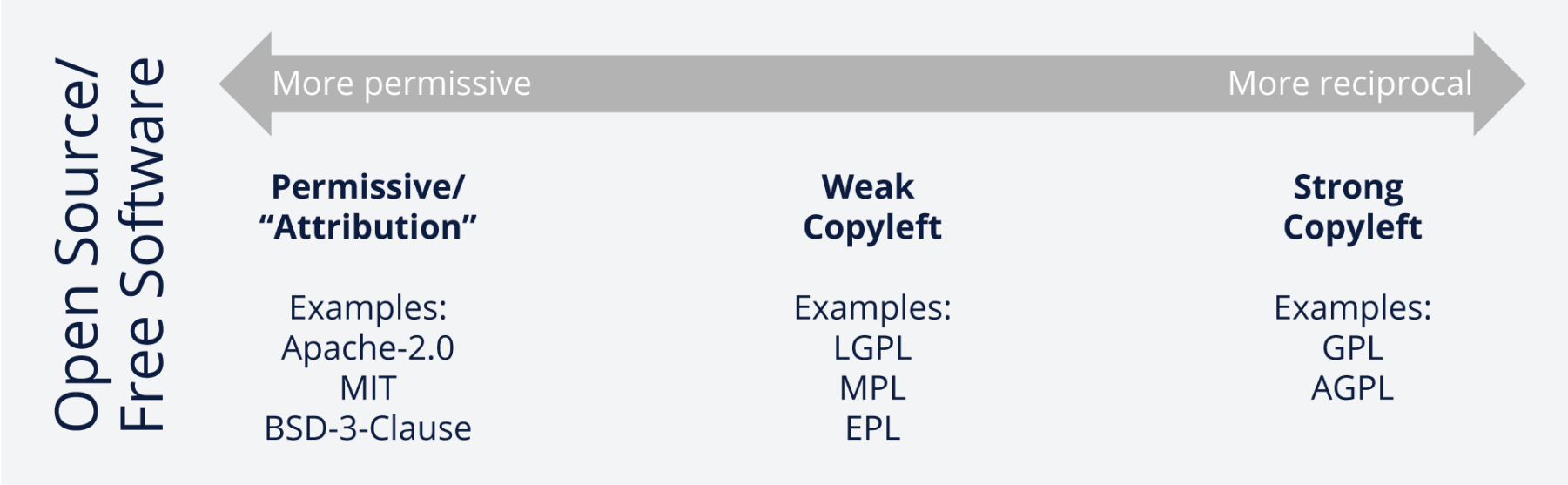
- 1. can be used free of restrictions*
- 2. can be studied by anyone*
- 3. can be shared and copied at no cost*
- 4. can be modified by anyone, and these improvements can be shared publicly*

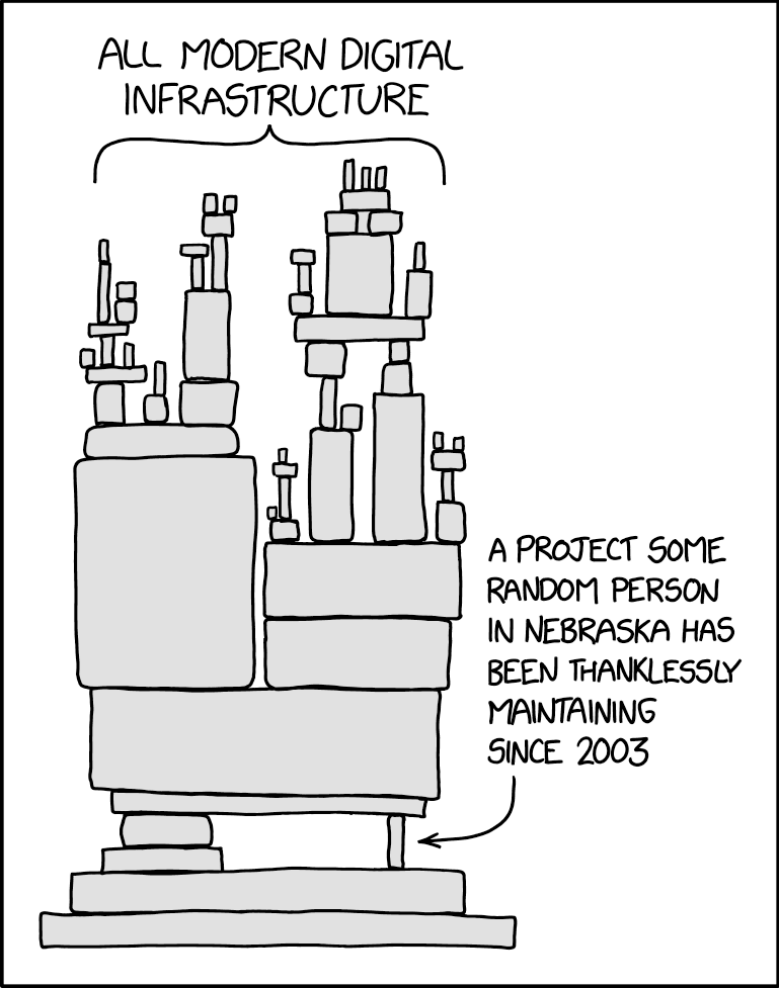
If you are working on a new project, you must first acquire a clear understanding of the following properties:

Things you are **required** to do
(MUST)

Things you are **permitted** to do
(CAN)

Things you are **forbidden** to do
(CANNOT)





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<https://xkcd.com/2347/>

CC
License Overview

		Share	Adapt	Attribution	NonCommercial	NoDerivatives	ShareAlike
	CC0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	CC BY	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	CC BY-SA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	CC BY-ND	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	CC BY-NC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	CC BY-NC-SA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	CC BY-NC-ND	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Share – You are free to copy and redistribute the material in any medium or format.

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Attribution – You must give appropriate credit, provide a link to the license, and indicate if changes were made. You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use.

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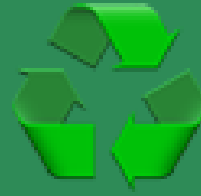
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<https://creativecommons.org>

WST-24-1x1.04



*Wie handhabt ihr die
"Attributionspflicht" in eurem
SDLC?*



Exkurs: Lizenz(en)



Urheberrecht

eng. Intellectual Property (IP)

- **menschliche** Schöpfung
- **individuellen** Charakter / Schöpfungshöhe
- **wahrnehmbare** Formgestaltung

Urheberrechtsschutz an «Werken» entsteht
damit automatisch mit der Entstehung

Übertragung

Recht	Sacheigentum	Urheberrecht
«absolutes»	Übertragung (z.B. Verkauf)	Übertragung (z.B. Verkauf)
«relatives»	Vermietung (vertragliche Nutzungserlaubnis)	Lizenz (vertragliche Nutzungserlaubnis)

Lizenz

Open-Source-Lizenzen sind **Lizenzverträge** im üblichen / normalen Sinn

Sie gewähren eine **Nutzungserlaubnis für Software**, deren Urheberrecht Dritten gehört

Der Lizenzvertrag kommt **durch die Nutzung der Software ohne Weiteres zustande**

Verträge

OSS-Lizenzen sind ...

- **bindende Verträge**, keine «Gefälligkeiten»
- rechtlich gültig und **vor Gericht durchsetzbar**

Verletzungen von Lizenzbestimmungen

führen oftmals automatisch zum **Erlöschen der Lizenz**. Nutzt man die Software dann weiter, **verletzt dies die Rechte der Urheber**.

Rechtsfolge: **Schadenersatzansprüche, Strafrecht, Reputationsschäden**



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SBOMs of modern applications show: 80 - 90%
(heavily) use open source components

WST-24-1x1.05



*Wie behaltet ihr den Überblick
zu den genutzten OSS-
Artefakten in eurer
Organisation?*



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<https://todogroup.org/resources/guides/tools-for-managing-open-source-programs/#tools-for-managing-source-code>





Compliance Program

OSPO-101.5.2





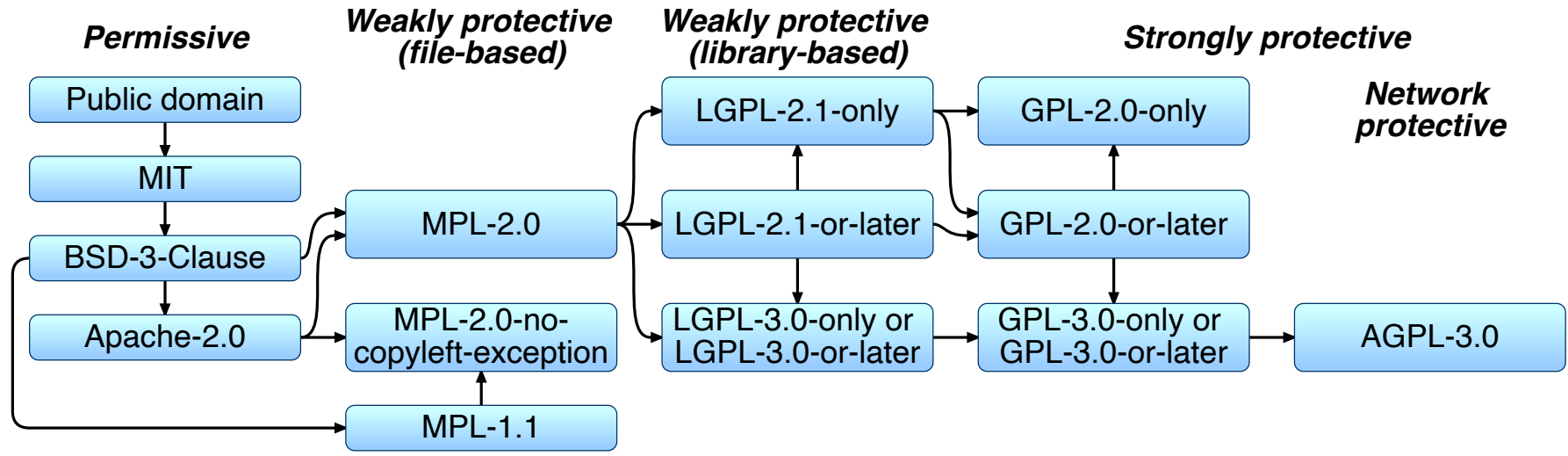
Pflicht(en)

Kennen 

Einhalten 

Art(en)

- **Kennzeichnung** und Hinweise (Attribution)
- **Verfügbarkeit des Quellcodes**
- **Reziprozität** der Lizenz : Copyleft
- **weitere Bestimmungen** zB Abgrenzungen zum Trademark



https://en.wikipedia.org/wiki/License_compatibility

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Events

Zeipunkt(e)

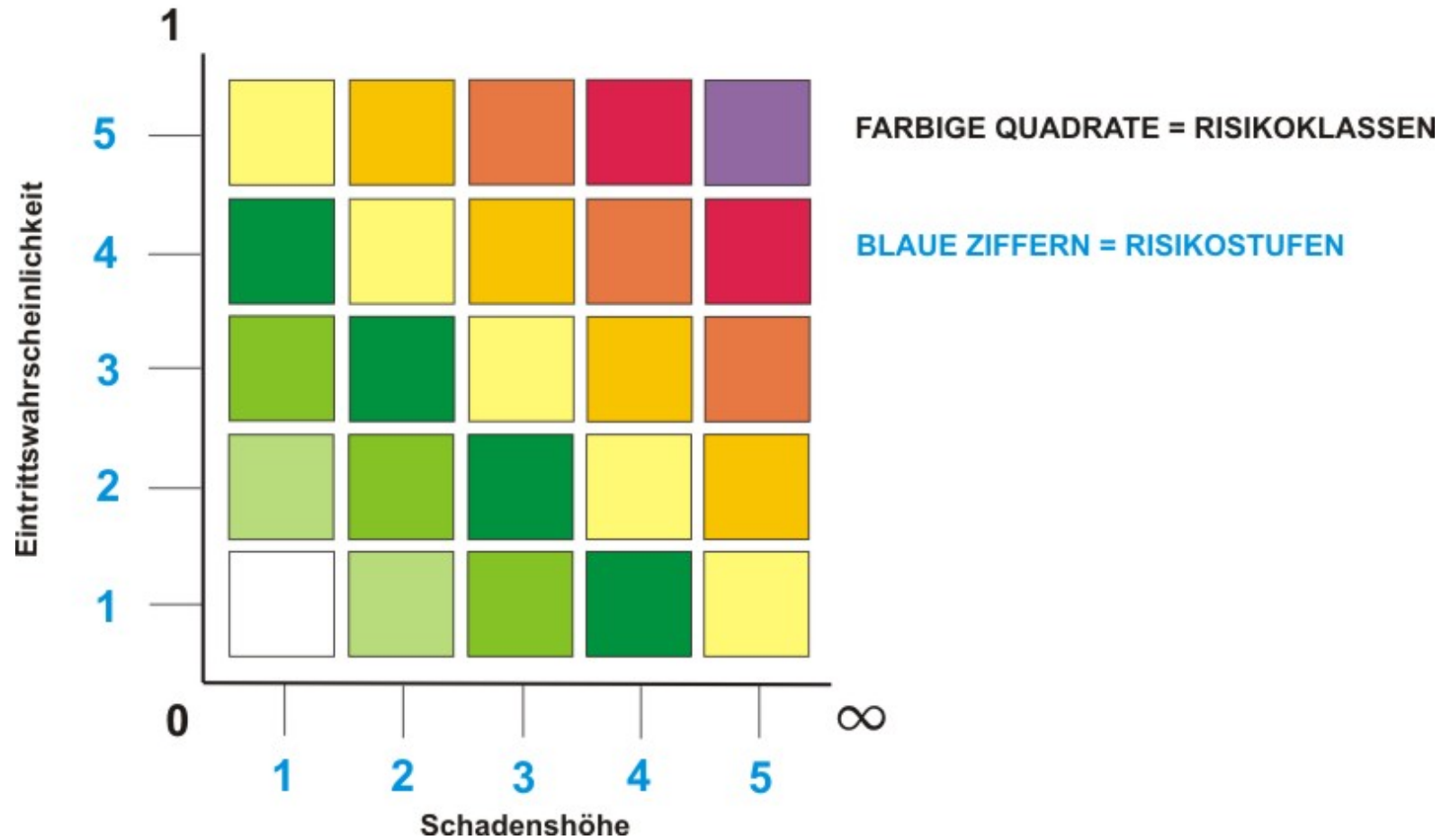
1. "Distribution"
2. "Modification"

WST-24-1x1.06



*Nutzt ihr bereits Prozesse /
Richtlinien zur Einhaltung der
Lizenzpflichten? Wenn ja,
welche?*

RISIKOMATRIX





Open Source Guidelines





15'

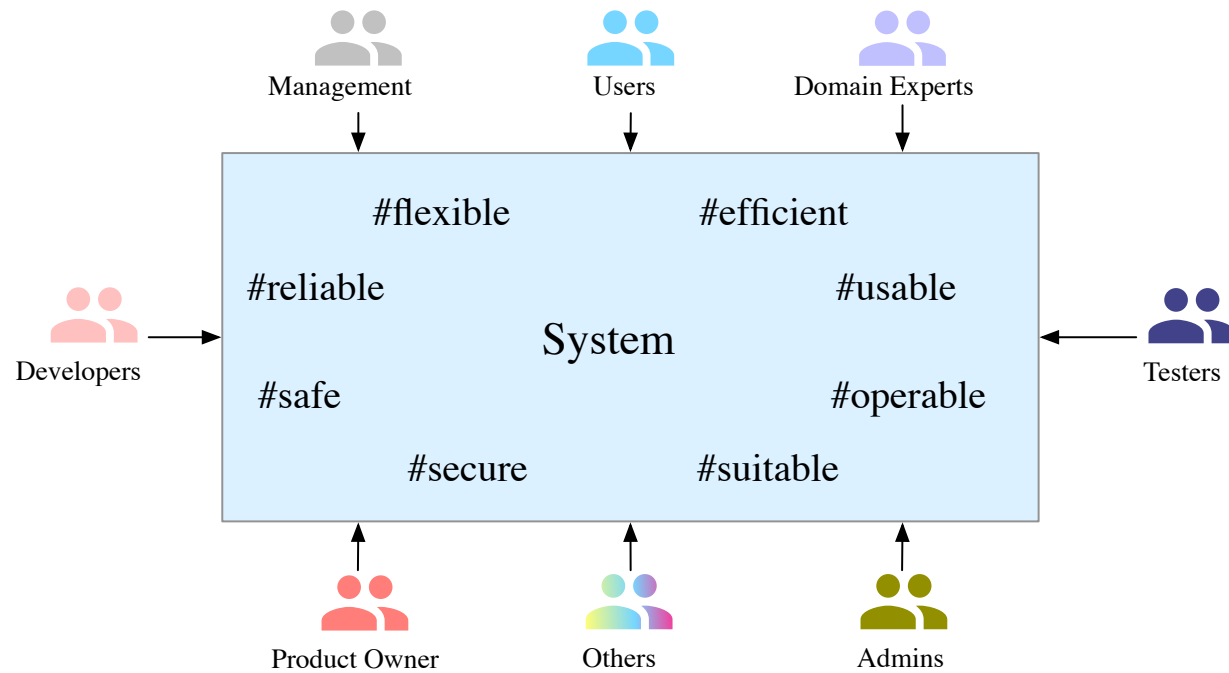


Den Fisch auf den Tisch!

Open Source Software

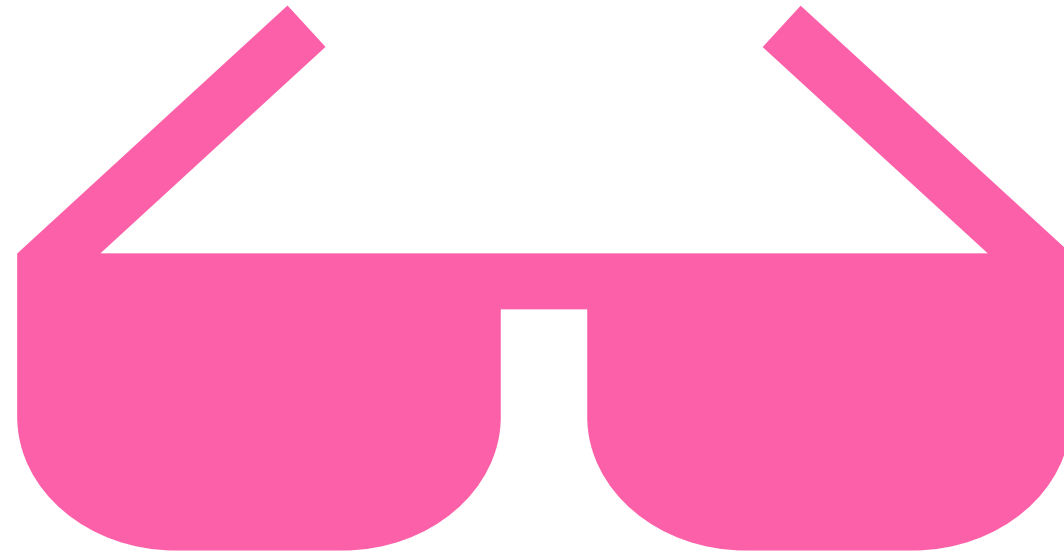
Metrics, Non Functional Requirements &
Qualities





<https://quality.arc42.org/qualities/>





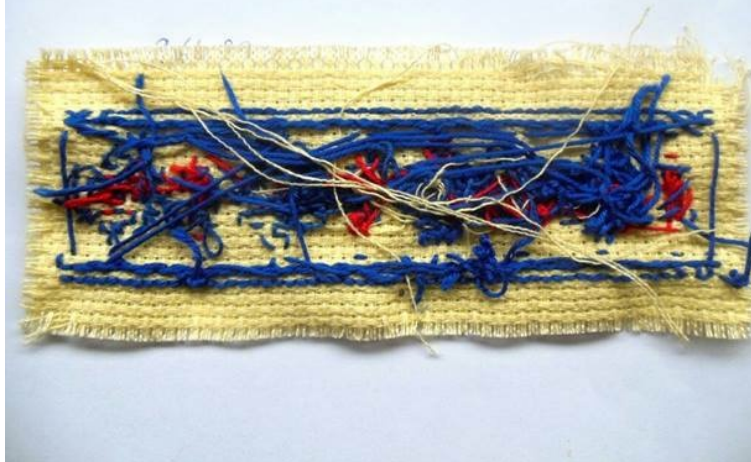
awesome



Frontend



Backend





<https://opensource.guide/metrics/>

<https://chaoss.community/kbtopic/all-metrics/>



Figure 1: Magic Quadrant for Application Security Testing



<https://openhub.net/p/linux/>

WST-24-1x1.07.1



*Wie lauten die Top 3 genutzten
(Programmier)-Sprachen im
Projekt "git"?*

WST-24-1x1.07.2



Wie viel Personenjahre Arbeit stecken im Projekt "GitLab"?



Badges

dynamisch & interaktiv



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Examples

- code coverage percentage: coverage 80%
- stable release version: version 1.2.3
- package manager release: gem 2.2.0
- status of third-party dependencies: dependencies out of date
- static code analysis grade: codacy B
- SemVer version observance: semver 2.0.0
- Python package downloads: downloads 13k/month
- Chrome Web Store extension rating: rating ★★★★★





<https://shields.io/badges>

WST-24-1x1.08



*Generiere einen dynamischen
Lizenz-Badge für dein Lieblings
Open-Source-Projekt.*

<https://shields.io/badges/git-hub-license>



openssf best practices gold



<https://www.bestpractices.dev/de/criteria>



Nutzen

Abhängigkeiten, Automatisierung & Pakete



libraries

SBOMs (Software Bill of Materials)

<https://spdx.dev/use/tools/open-source-tools/>

SPDX[®]: System Package Data Exchange





software packages

win:

<https://community.chocolatey.org/packages>

lin: <https://flathub.org>

mac: <https://brew.sh>



WST-24-1x1.09



*Installiere dir git auf der
Kommandozeile z.B. über den
Package Manager (*win, lin, mac*)
deiner Wahl.*

<https://git-scm.com/downloads>

```
tem1@L2T6JGJNLH ~ % git --version  
git version 2.39.3 (Apple Git-146)
```





Den Fisch auf den Tisch!



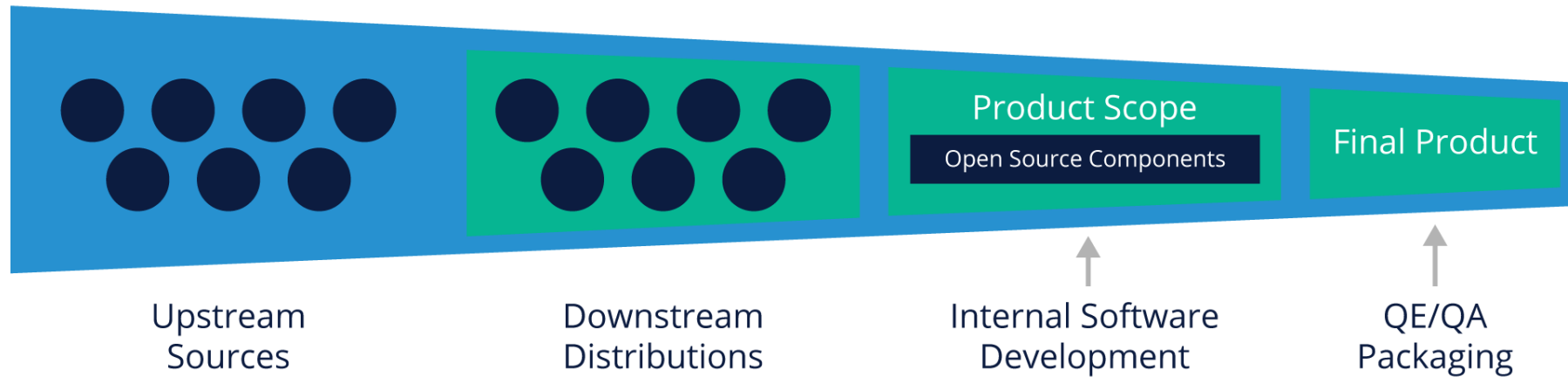
Mitwirken

Warum?

Upstream & Downstream

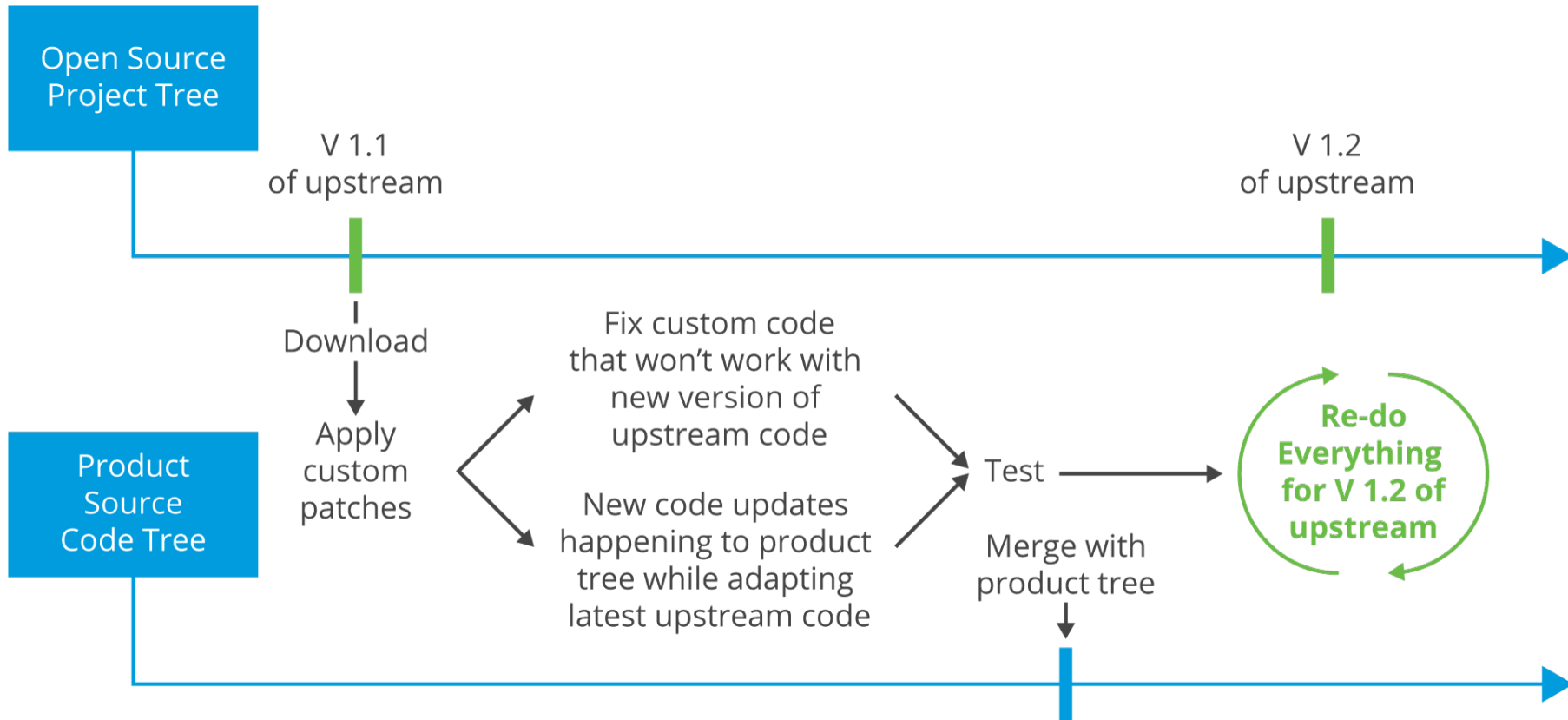


Open Source Supply Chain Funnel



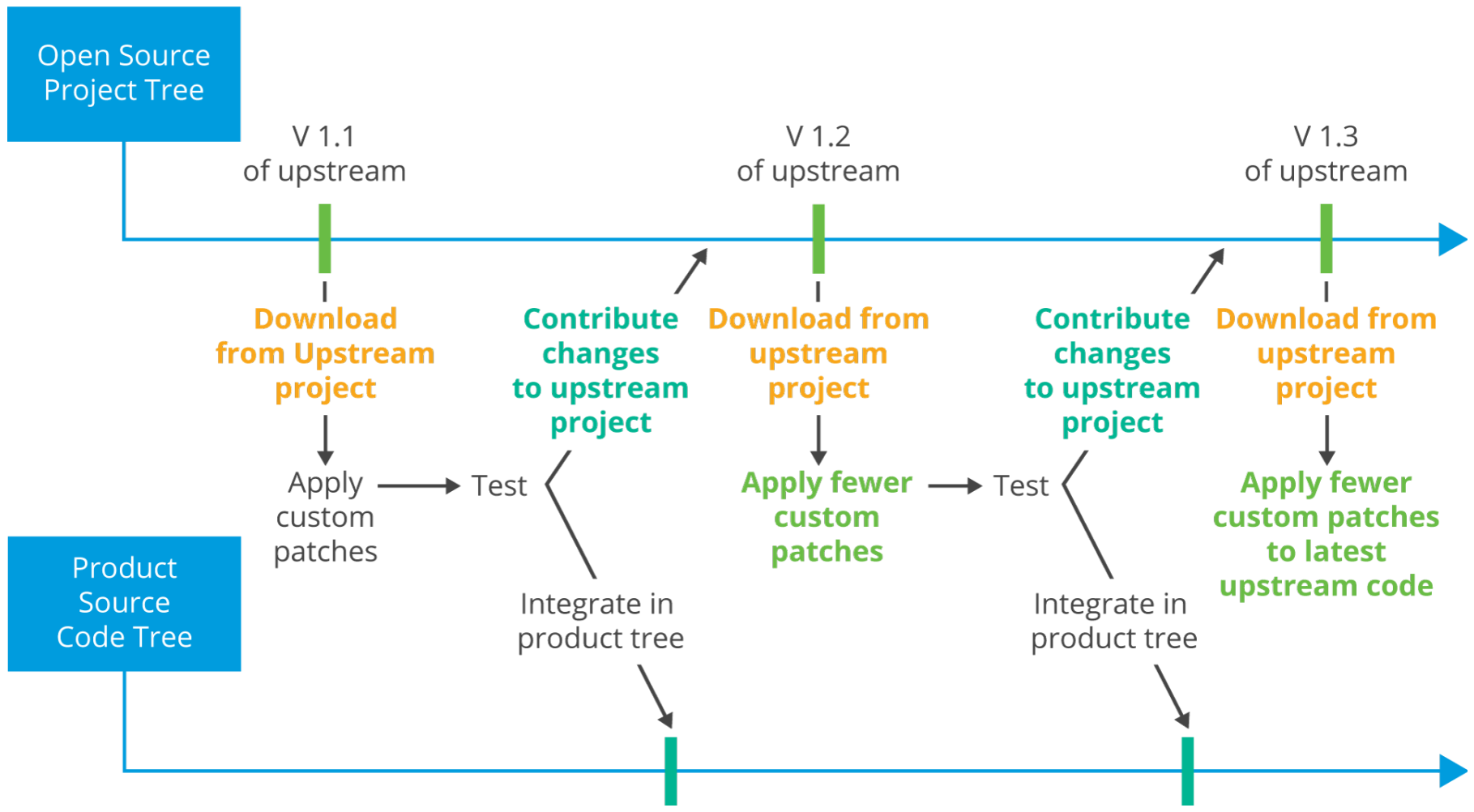
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OSPO-101.6.1



WORKSHOP TAGE

WORKSHOP TAGE



Semantic Versioning 2.0.0

```
1 Given a version number MAJOR.MINOR.PATCH, increment the:
2
3 MAJOR version when you
4 > make **incompatible** API changes
5
6 MINOR version when you
7 > add functionality in a backward *compatible* manner
8
9 PATCH version when you
10 > make backward *compatible* bug fixes
```

<https://semver.org>



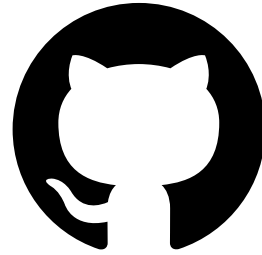
WST-24-1x1.10



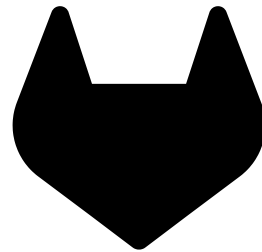
*Du aktualisierst eine
Abhängigkeit von Version 1.4.2
auf 1.6.1 - worauf solltest du
bei diesem Versionswechsel
achten?*



Wie?

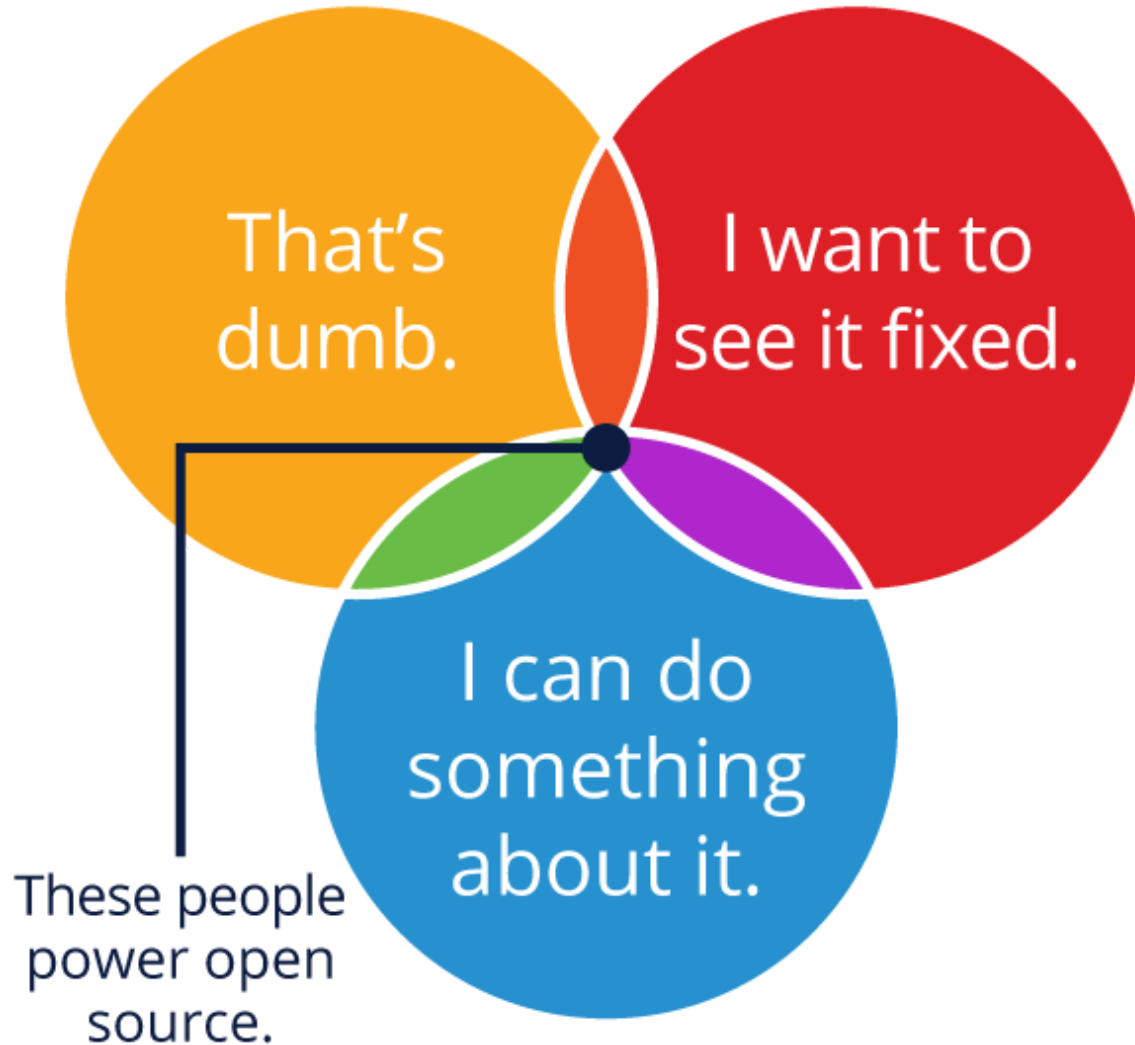


<https://github.com>



<https://gitlab.com>

What is a contributor?



bug & feature reports

additional information e.g. reproducing an
issue

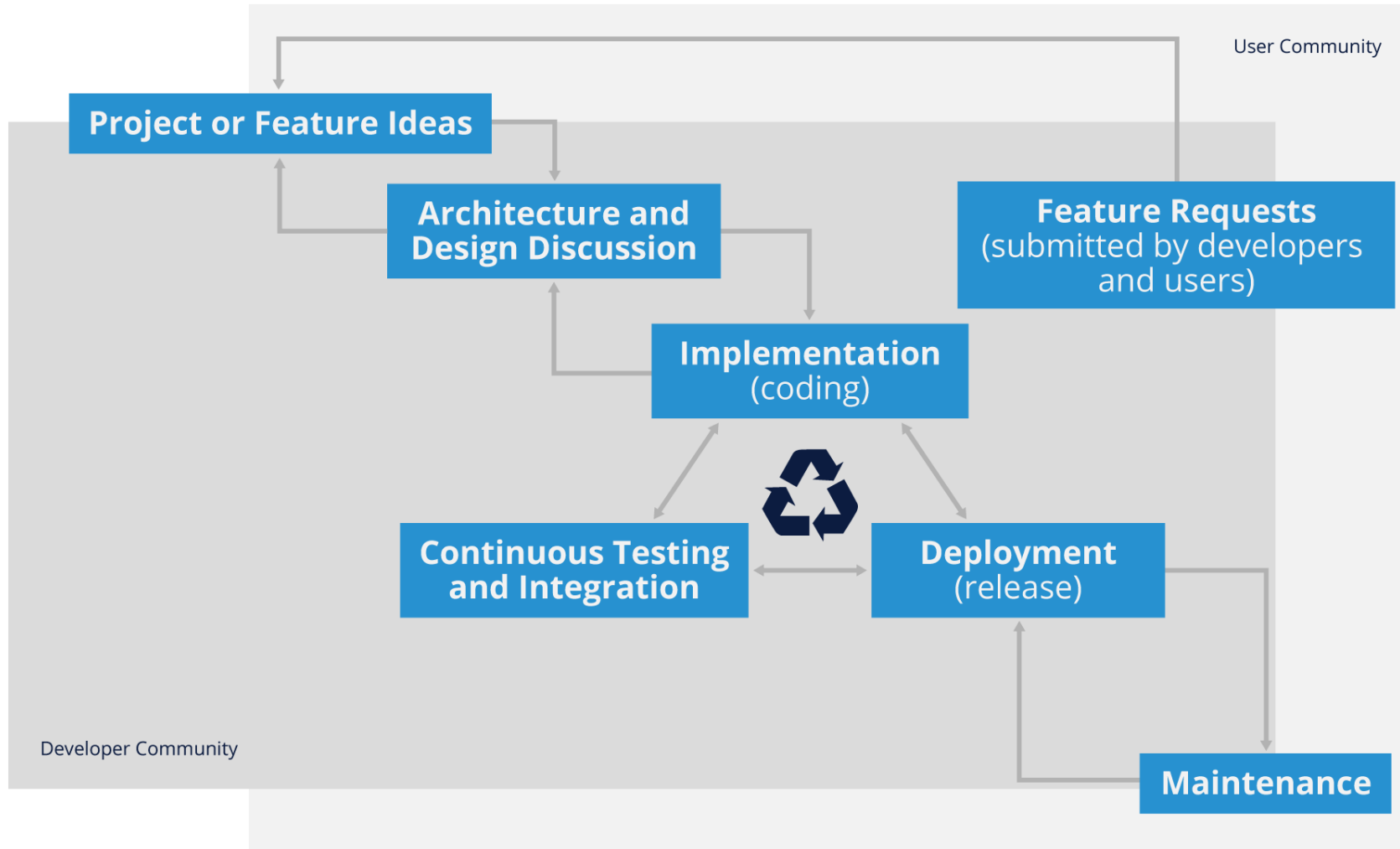
source code fixes

documentation

examples

...



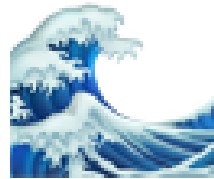


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WST-24-1x1.11



Habt ihr bereits Contributionen beigetragen? Auf welche seid ihr besonders "stolz"?



Intellectual Property

DCOs & CLAs

Committer, Authors, Reviewer, Maintainer, ...





Author & Committer



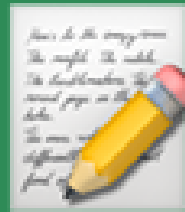
Developer Certificate of Origin (DCO)

```
git commit --signoff -m "My change"
```

Contributor License Agreement (CLA)



WST-24-1x1.12



*Wer war in diesem Commit
Author bzw. Committer?*



15'



Den Fisch auf den Tisch!

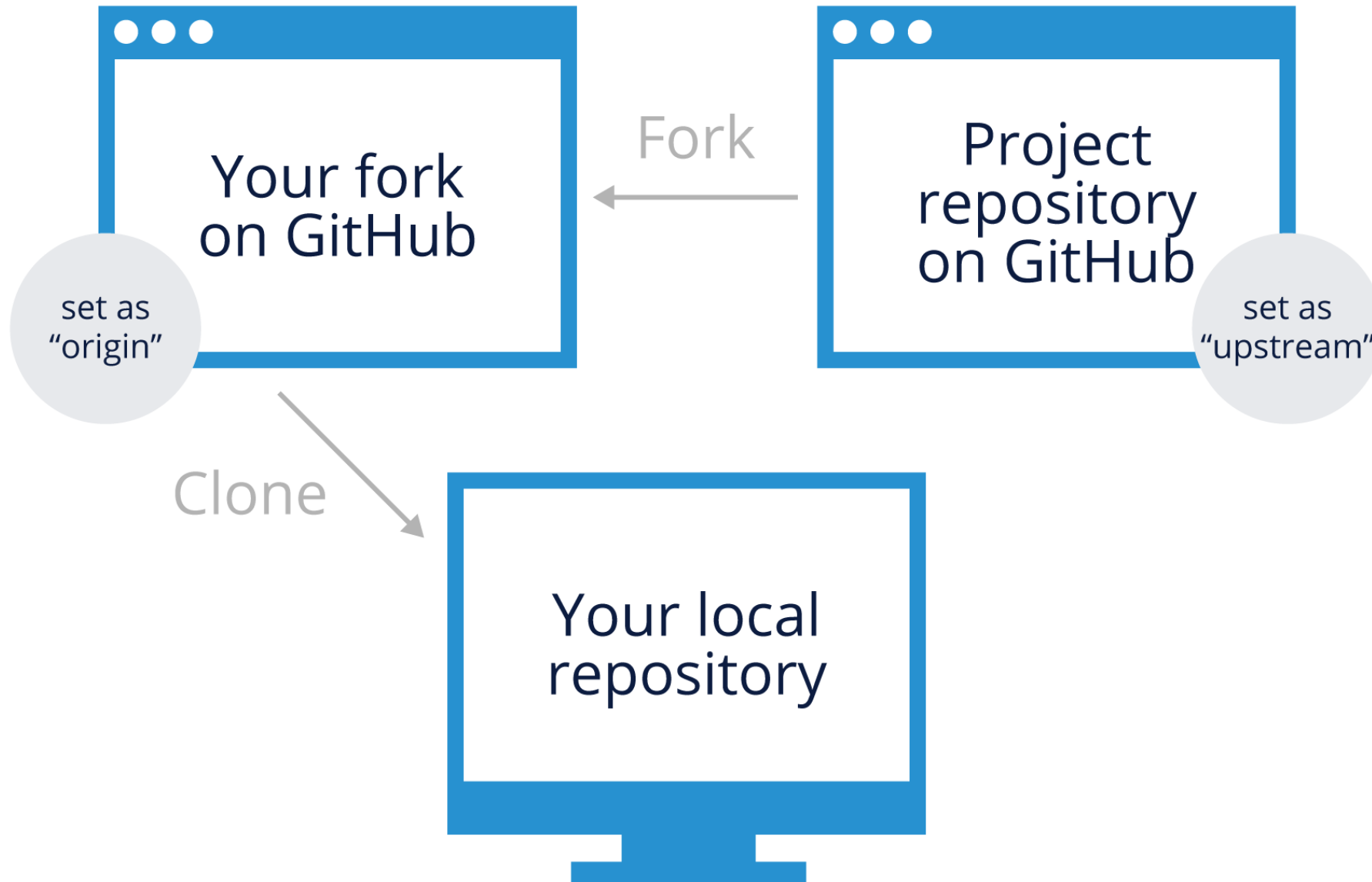


Upstream Practices

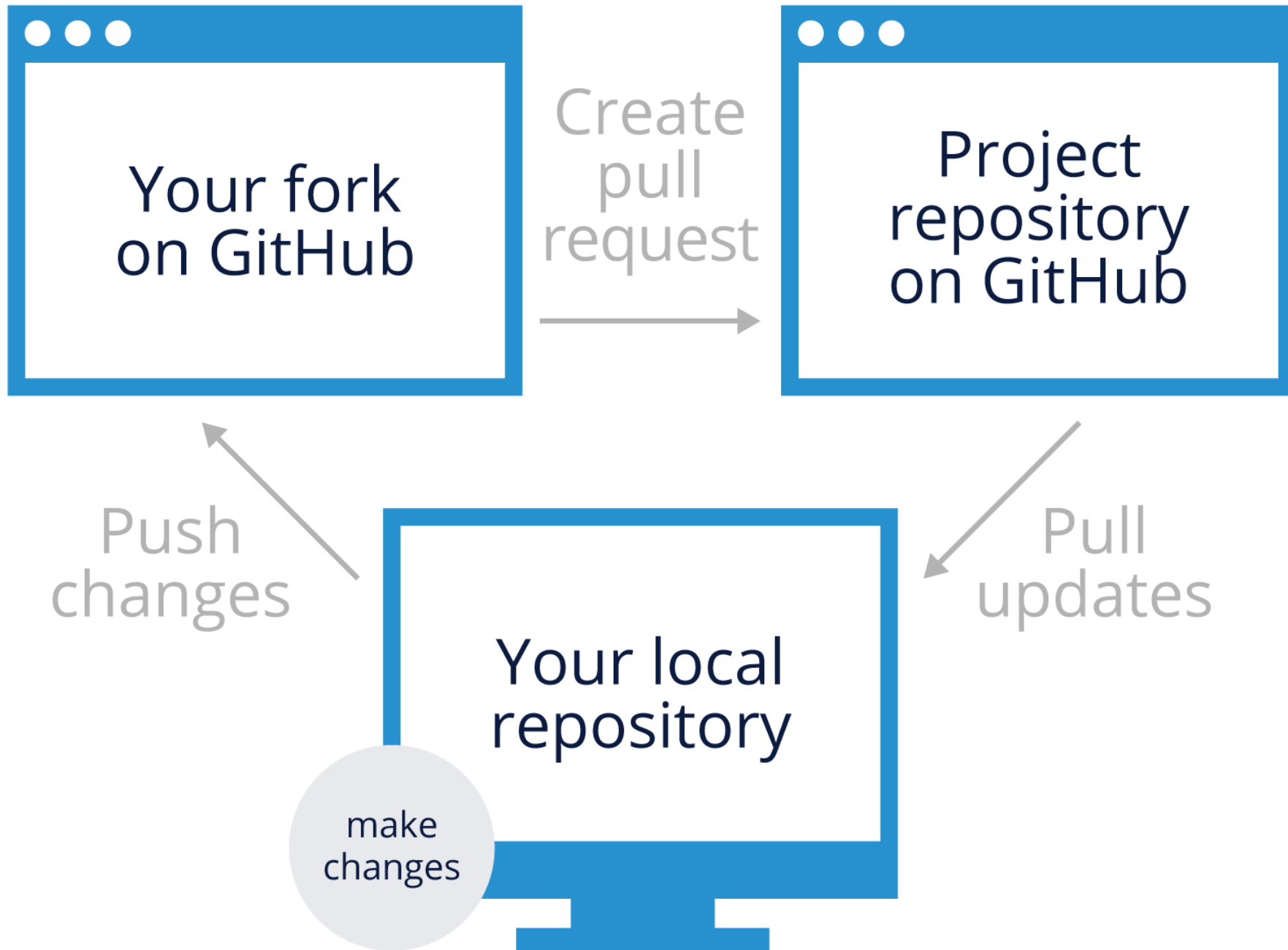
(draft) Pull, Merge Requests

OSPO-101.6.3





< WORKSHOP TAGE



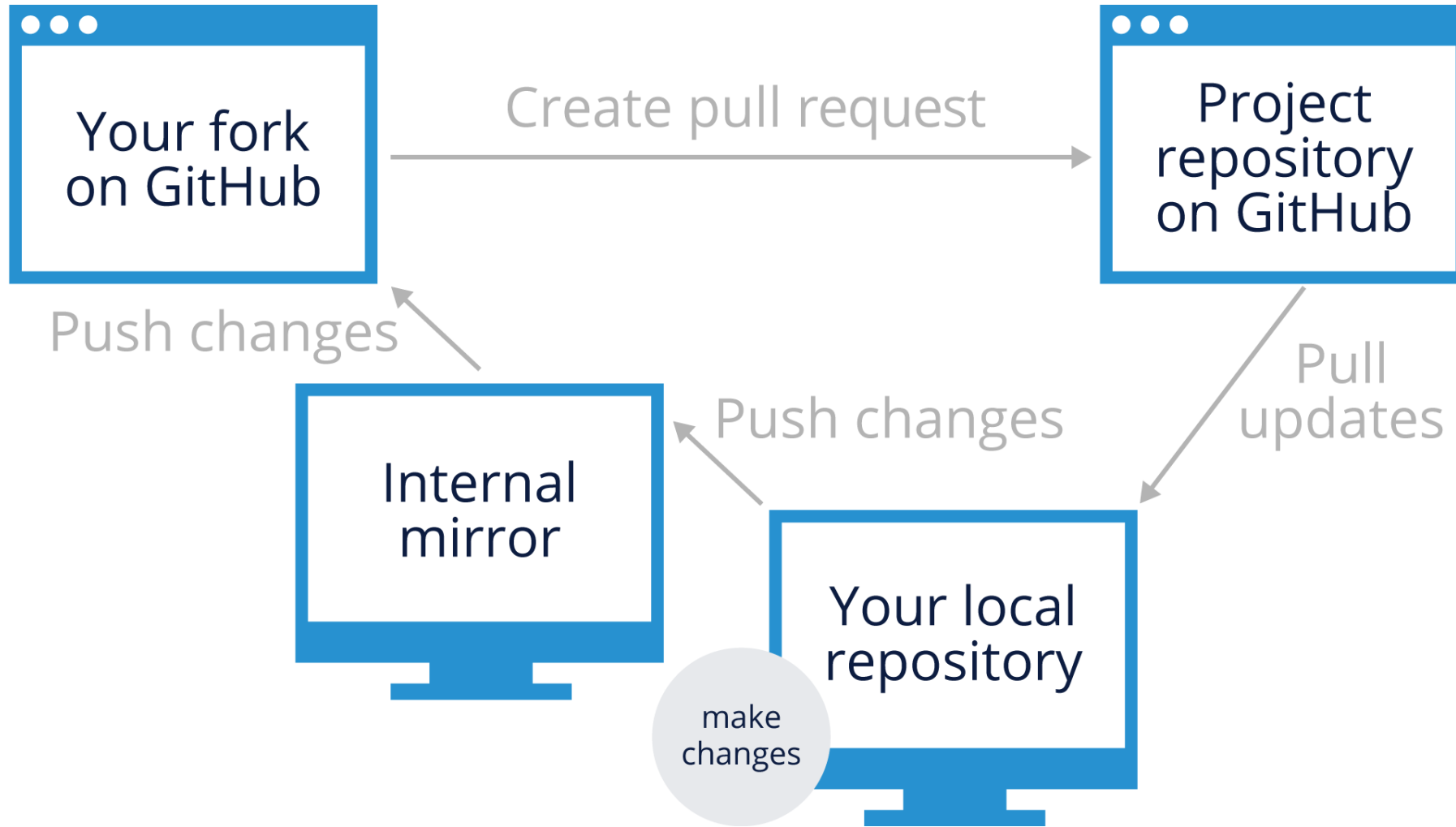
< WORKSHOP TAGE

typical

Contribution Flow

1. Fork & Clone
2. Pull updates from upstream, push changes to origin
3. Create merge / pull request from fork to upstream project





< WORKSHOP TAGE

WST-24-1x1.13



*Stellt (im 2er Team) bitte 1-2
Issue(s) bzw. PRs zum Workshop
von heute ein.*



Upstream Practices

Community Interaction

OSPO-101.6.3



Change request sent to community

Discussion in community

Change request is accepted

Change is tracked

Change is prioritized

Change aligned with release

Development / QA



Before You Begin
Signal Intent
Discussion and Rationale
Acceptance
Tracking Proposed Contribution
Prioritization
Release Planning
Development & QA





15'

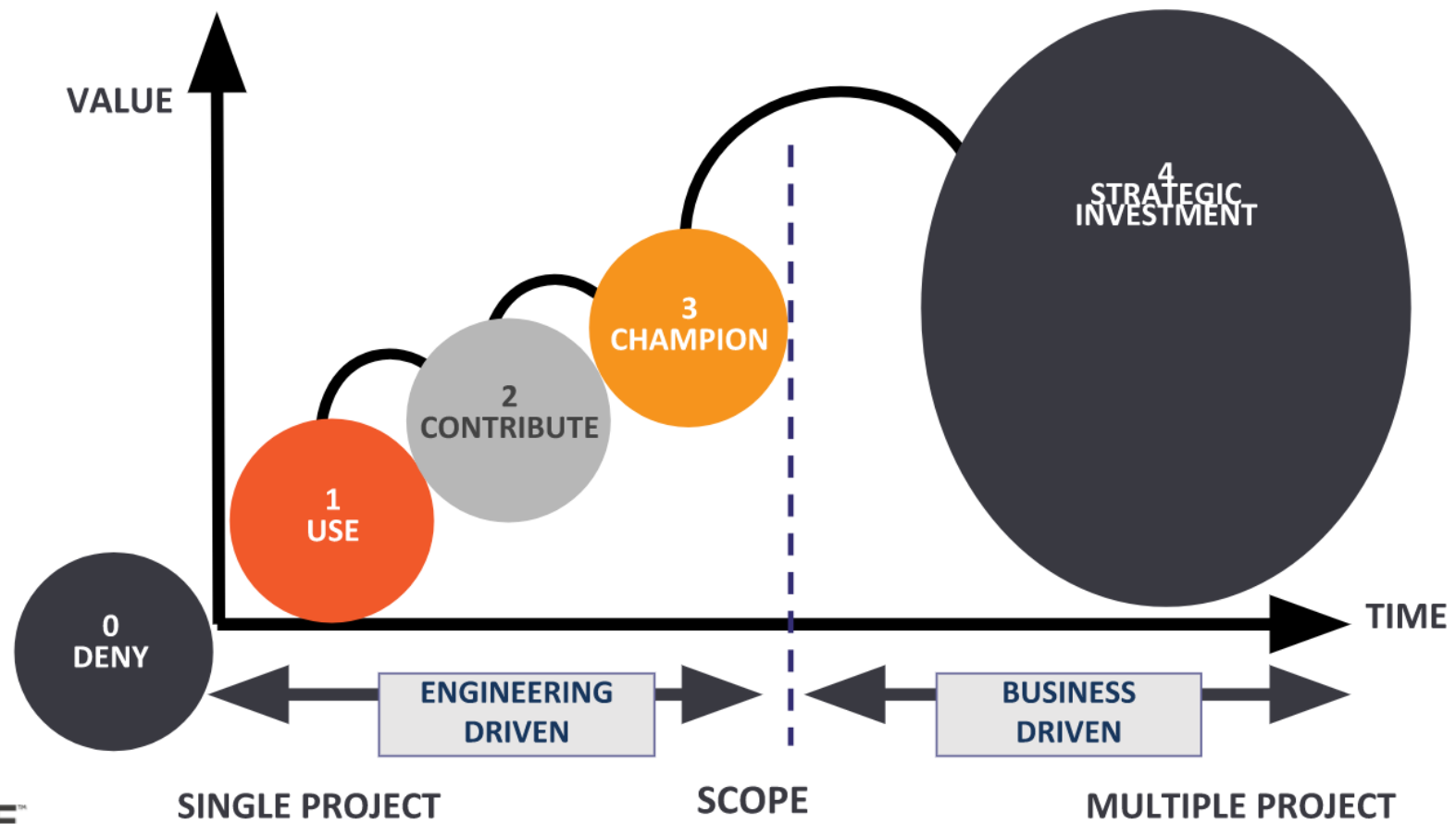


Den Fisch auf den Tisch!



Starten

OSPO-101.7









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Questions to Ask Yourself Before Starting a New Open Source Project

-  Is it possible to join efforts with an existing open source project?
-  Can we launch and maintain the project using the OSS model?
-  What constitutes success? How do we measure it?
-  Can we financially sponsor the project? Do we have an internal executive champion?
-  Will the project be able to attract outside enterprise participation (from the start)?
-  Is there enough external interest to form and grow a developer community?

5 Good Reasons to Start a New Open Source Project as an Enterprise



Undercut your competition; provide a reference implementation to a standard; share development costs for strategic functions



Commoditize a market; reduce prices of non-strategic software components



Drive demand by building an ecosystem; grow symbiotic ecosystem for your products



Partner with others; engage customers; strengthen relationships with common goals



Offer your customers the ability to self-support, the ability to adapt your code without waiting for you

WST-24-1x1.14



*Habt ihr bereits Projekte
gestartet? Warum habt ihr das
gemacht?*



preparations

OSPO-101.7.2

Internal Preparations

Executive Sponsor: Technical and Community
& Financial

Allocate Resources

Educate Your Workforce: Engineers &
Managers



Reviews

Legal Review

Technical Review

Marketing Review



Governance and Processes



Governance Models

Leadership

Foundation or Independent

Technical Processes



Project Infrastructure

Development Tools

Website

Communication Tooling

Documentation Tooling



WST-24-1x1.15



Was sind eure Erfahrungen hinsichtlich des (Mehr)-Aufwands für solche Vorbereitungen?



launch & sustainment

OSPO-101.7.3





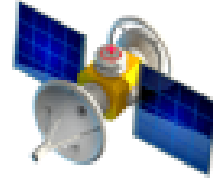
Project Launch

final code review

pre-launch activities

good (open source) citizenship: openness & transparency





Project Maintenance

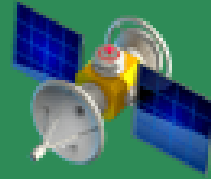
Build Community

Designate a Community Advocate

Evaluate and Adapt



WST-24-1x1.16



*Was sind in euren Augen
"vorzeige"-Projekte, wenn es um
das Thema "Sustainment" geht?
Warum?*



15'

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Den Fisch auf den Tisch!

The graphic features the text "OSPO 101" in a bold, dark blue sans-serif font. The letters are interconnected by a network of dark blue lines and colored circular nodes. The nodes are in shades of teal, light blue, and orange. The "O" and "P" are particularly large and prominent. The "101" is positioned below "OSPO".

OSPO 101

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OSPO-101.2

OS {

model, strategy, policies

} PO

Open Source Office - Non Development Activities

Relationships Collaborations

- Linux Foundation
- Open Invention Network
- Software Freedom Law Center
- Mozilla Foundation
- GNOME Foundation
- Free Software Foundation
- Apache Foundation
- Software Conservancy Center

Open Source Legal Compliance

- Manage and support open source compliance process
- Advise on open source compliance
- Help resolve compliance inquiries
- Provide guidelines and checklists to enable internal education and awareness on the topic
- Sensing on emerging open source legal concerns

Strategy, Community, Engagement

- Develop, maintain and execute corporate open source strategy & policy
- Internal and external evangelism
- Represent open source views in internal policy discussions
- Launch new open source projects, support open sourcing internal code
- Sponsor, publish, speak at open source conferences
- Organize community events
- Develop and deliver internal open source training
- Provide engineering mentorships to grown internal open source expertize
- Conduct internal technical workshops
- Advise on community matters





<https://todogroup.org>

Case Studies





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<https://landscape.todogroup.org>



ECLIPSE[®]

FOUNDATION

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<https://ossbenchmark.com>

<https://oss-studie.ch>





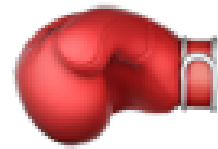
Feedback



Danke!

Q&A





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