Innersource : how opensource spirit is spreading among big corp

Bertrand Parpoil, Vincent Picavet, FOSS4G 2021
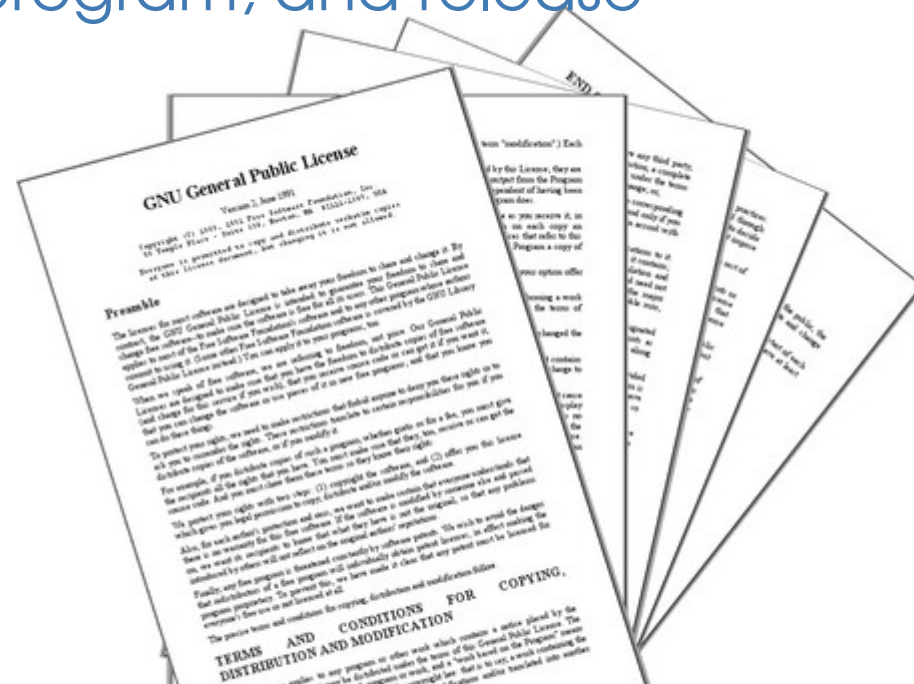infos@oslandia.com

OpenSource : back to the roots

4 Essential freedoms

#0 : The freedom to run the program for any purpose.

#1 : The freedom to study how the program works, and change it to make it do what you wish.

#2 : The freedom to redistribute and make copies

#3 : The freedom to improve the program, and release your improvements

Write software ?

What is a software ?

code, documentation, devops, infra, design material, other resources...

How do we do that ?

give **feedback**, **help** new users, **recommand** the project to others, **test** and report bugs, ask for new **features** and specify them, **code** and update the software, create infographics, write and update the **documentation**, **translate** the software, maintain the **infrastructure**, execute **admin** burdens…

Opensource - roles

Roles in a community

- users

- contributors

- committers

Managers

Project founder(s)

Designated by the community

(through vote, PSC…)

Transition from a role to another :
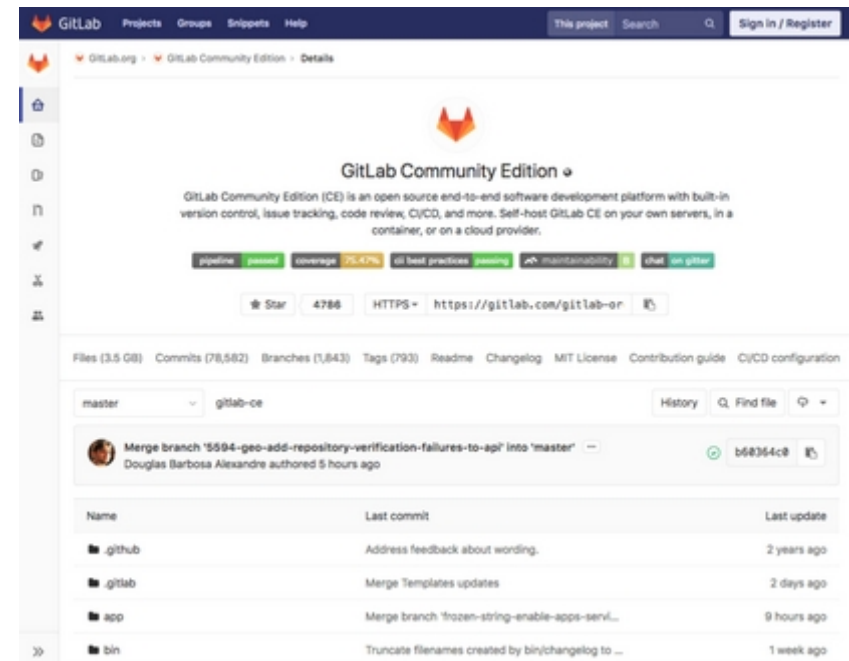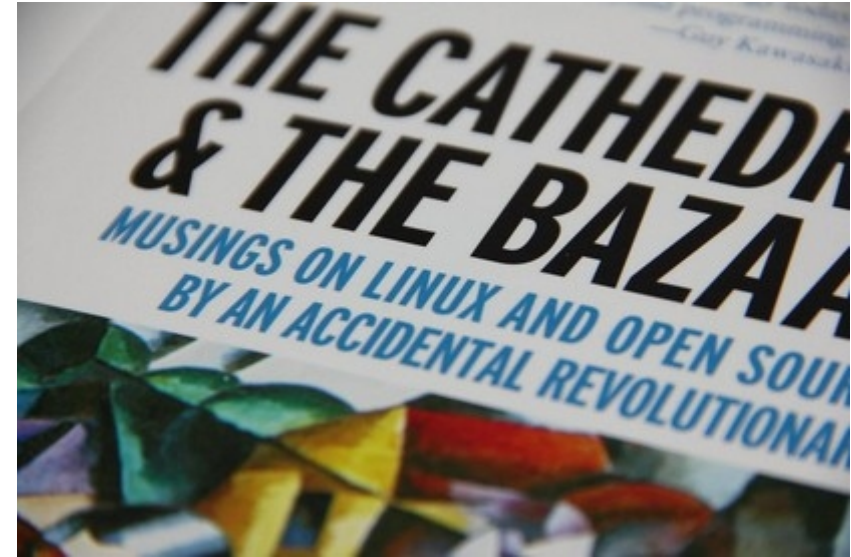**through technical rights and acknowledgement of work and actions**

Peer review and recognition → individual appreciation

Organization & characteristics

Opensource organization characteristics

- distributed (worldwide)

- Organic

- Self-organized

- Iterative

- Based on meritocraty

- Tooling

  - Written culture

  - GitLab / GH, Mailing lists, chats…

Organization
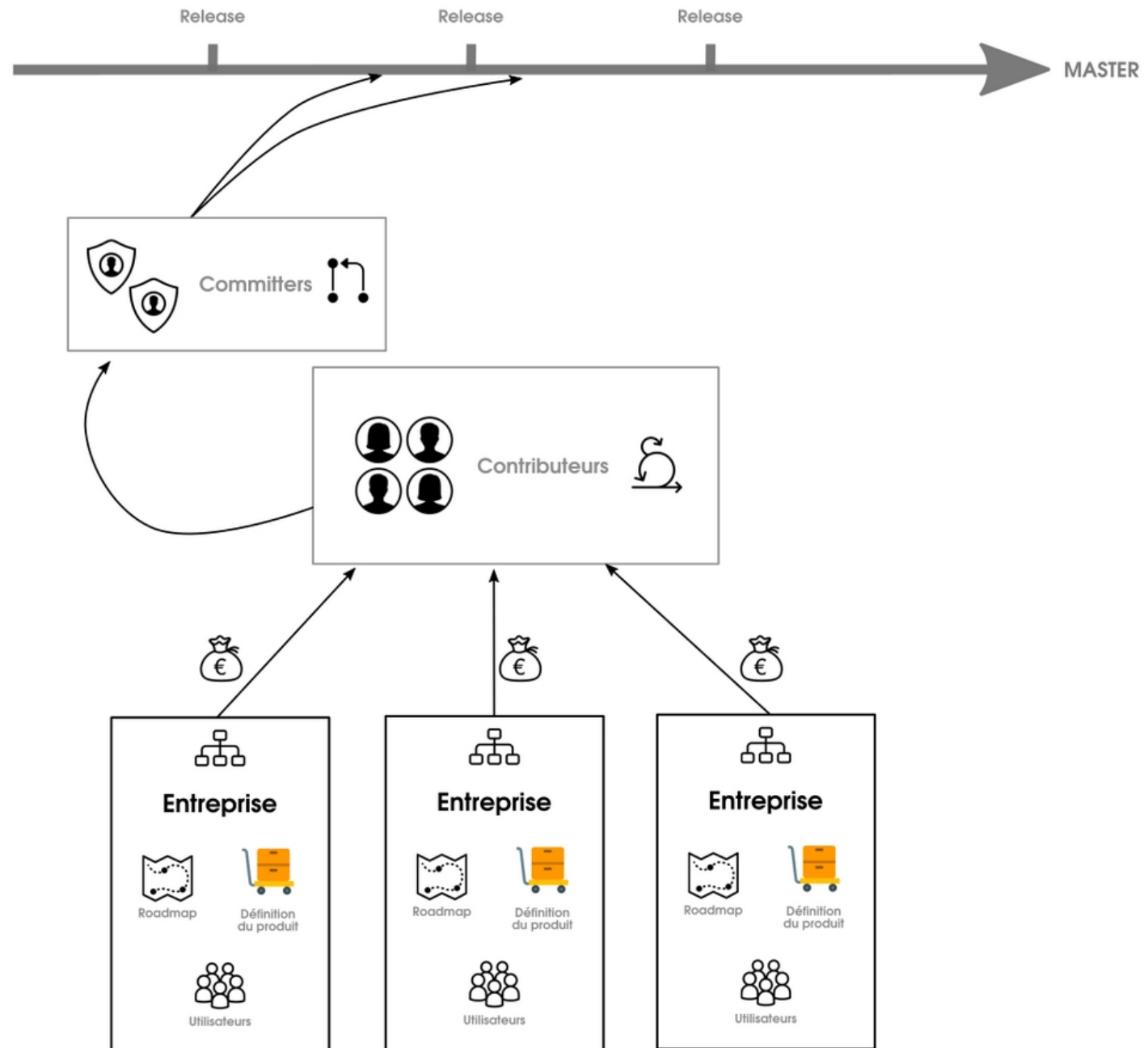
Organization
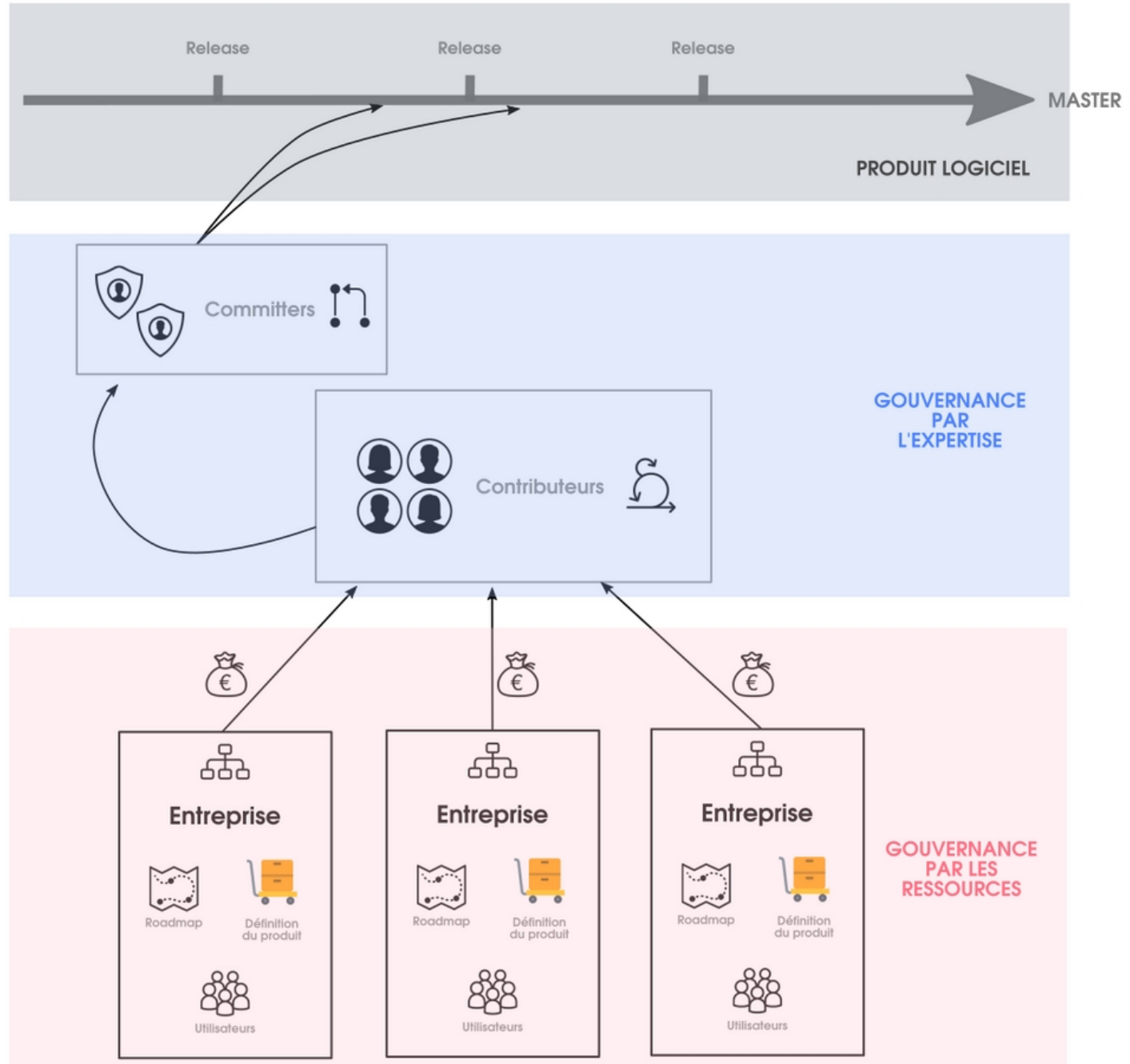
Linux kernel

- \> 15K contributors, Organized as network

  ➜ *Linus Torvalds*
  - *~12 trusted lieutenants*
  - *developers*
  - *The opensource community*
- Individuals detain power, not companies
- Process :
  - *→ patches, reviews*
  - *→ Torvalds | Morton review, change, commit*
  - *→ Tests*
- Stables and experimental versions

QGIS Desktop GIS

- ~400 contributors
- Organized as a community
- OSGeo Foundation
  - *PSC*
- QGIS.org : swiss non-profit org.
- Backlog managed by contributors,
  in fine by funders

"The use of open source software development **best practices** and the establishment of an **open source-like culture within organizations** for the development of its software and for innovation."

Innersource != OpenSource

Innersource : characteristics

Transparency

   Open access to code, design, decisions, communication

Collaboration

   Explicit processes, written culture, shared tools

Auto-organization

   Create a frame

   Allow auto-organization within that frame

Meritocracy / do-ocracy

Those who commit pilot the product's evolution

> Steering software through contribution and technical skills
>
> Proove and measure
>
> Incitation to commit
>
> Peer-review, votes, constructive attitude

Measure

> Identify KPI and measure them
>
> e.g. # merged PR, time-to-merge, #contributors...

… why ?

Why adopt Innersource ?

- Time-to-market velocity
- Break silo effect
- Software quality
- Documentation quality
- Cost reduction
- Better innovation
- HR attractivity

They started more than 20 years ago : 2000 !

IBM

Development velocity increased 30%
Better creativity and innovation

Philipps

Technology reuse improvement
Software quality mprovement
Reduced Time-to-market

Zalando

Innersource AND OpenSource

zalando — Projects   Docs   Blog   Purpose

Zalando Open Source
Scaling Open Culture

State of open source at Zalando 2018 Report is now available

… who ?

Large organizations dive in !

Engie, Thalès, Autodesk, Société générale, SAP, Nokia…
HP, Lucent, DTE, Google, Microsoft, PayPal, Walmart, T-Mobile…

Inner Source ou quand les entreprises se réinventent en communautés open source

par Alain Clapaud, le 05 juin 2019 13:23

Les communautés open source intéressent de plus en plus les DSI et pas uniquement pour aller vers l'Open Source : cette nouvelle organisation du travail des développeurs peut être transposée en entreprises ! C'est ce que l'on nomme l'Inner Sourcing.

Microsoft is going all-in on 'Inner Source'

Microsoft is staffing up an internal Inner Source initiative to bring open source principles, methodologies and tools for use by development teams inside the company.

10 steps to innersource in your organization in 2017

Is your company planning to implement innersource concepts in 2017? We walk through steps for getting started.

05 Jan 2017 | Jono Bacon 🔊 | 312 👍 | 5 comments

E.g. in France

Inter-company WG

➜ Created by Florent Zara (Henix)

➜ Big corp.

Engie, Thalès, Société générale
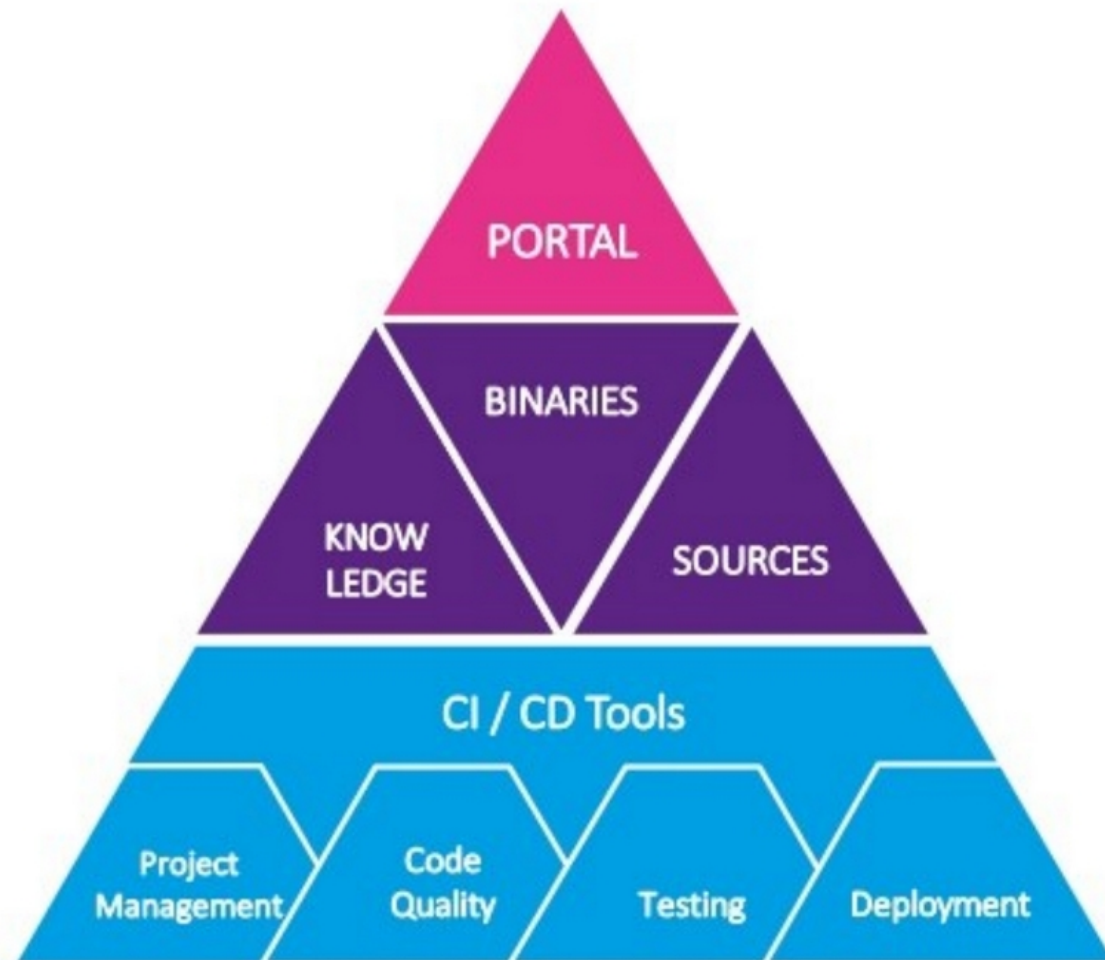Véolia, PSA, SNCF…

➜ Communicate among peers

How to ?

Multiple approaches according to priority goals

3 Pillars :

- Production
- Sharing
- Communication

Continuous integration

➜ Project management

➜ Quality

➜ Tests

➜ Deployment

Set of tools

Transversal sharing through the company

➜ Binaries

➜ Code

➜ Documentation

➜ **Knowledge**

Delete entry barriers

Create internal communities ("tribes")

Communication

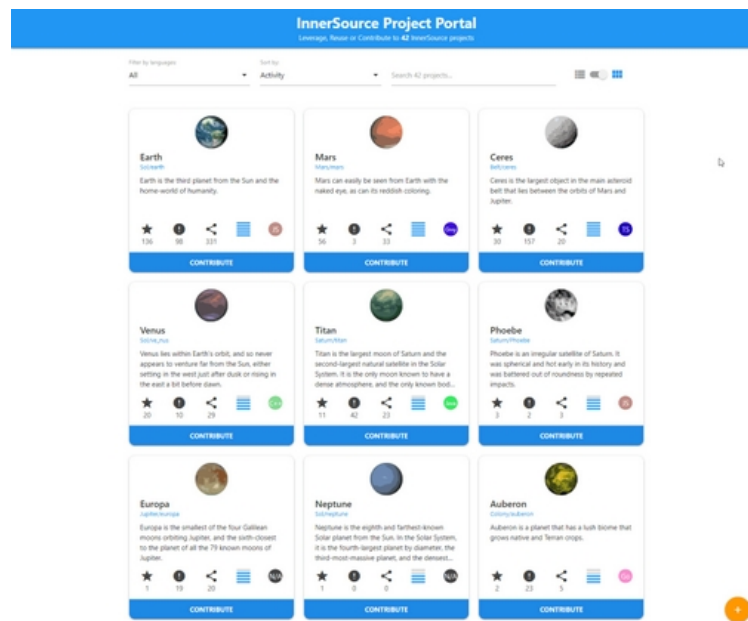Internal Innersource portal

Internal community management

Internal communication

External communication

➔ Conferences

➔ Blogs

➔ …

Warning points

Licences (needs specific licences)

Social and fiscal laws and issues

Sensitive code or data

Investment needed

➜ Not just "throw everything on GH"

Innersource = path towards OpenSource ?

Innersource : good or bad ?

BAD

~~OpenSource~~

Open-Washing risk

More "almost-open" licences => confusion

Failed innersource projects => bad image for OS

Drains opensource developers to closed source dev

GOOD

Culture change => no return

Prove quality of OpenSource dev methods

Ramp up to OpenSource programs

Train new developers to OS culture

Better understanding of OS ecosystem

=> more collaboration & funding with OS projects

Large companies => large budgets

Opinion : good, spread it !

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Oslandia
Engineering your GIS

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🐦 **@Oslandia**

🐙 **github.com/oslandia**

OSLANDIA

OpenSource GIS

- ⏻ **Born 2009**

- 👥 **French SME**

- 🔧 **High technology**

- 📂 **OpenSource**

- 📍 **Geographical Information Systems**

Phnom Penh Blackouts

Data from Urban Voice Cambodia
(http://www.urbanvoicecambodia.net/)

Kelvinbridge
map by Steven Kay, Geo
(geogeoglobal.com) @w
Map combines 3cm reso
Insolation