



# Sustainability of Open Source in International Development

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4 February 2018

FOSDEM: Free & Open Source Software Developers' European Meeting

Brussels, Belgium

**dial** Digital  
Impact  
Alliance



# IMAGINE ...

## a world without sustainable free & open source software projects.

Today, open source software is used in critical roles in countries you might not think about.



**Small business loans & financial management**



**Charities connecting with beneficiaries**



**Patient record management in hospitals and clinics**

# TODAY'S GOALS

1. **Understand FOSS risks** in development\*
2. Explore these **projects' wants & needs**
3. Share **our goals** for them
4. Learn **what we're building** together
5. How **you can make a difference**
6. Consider **your own projects**



# “Questions at the End,” but...

- 1 SIMILAR PROGRAMS NOW OR IN PAST?
- 2 WHAT SERVICES ARE WE MISSING?
- 3 FUNDING MODELS THAT WORK?
- 4 POTENTIAL PARTNERS OR PROJECTS?





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Today's global climate of **international development funding cuts**, along with growing **challenges in sustainability** of FOSS projects generally, means we need to focus on **co-investment** in **shared resources** for those projects...

the mission of the  
DIAL Open Source Center.

# Who am I? Why am I here? Why do I care?

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Focus on Governance & Participation



Community Management  
Best Practices



Contributor Inclusion,  
Retention & Engagement

Electrical & Computer  
Engineering  
Human-Computer  
Interaction



Corporate Health IT  
Financial Services  
International Development  
OpenMRS

**DEVELOPMENT ... aka**  
**DIGITAL DEVELOPMENT ... aka**

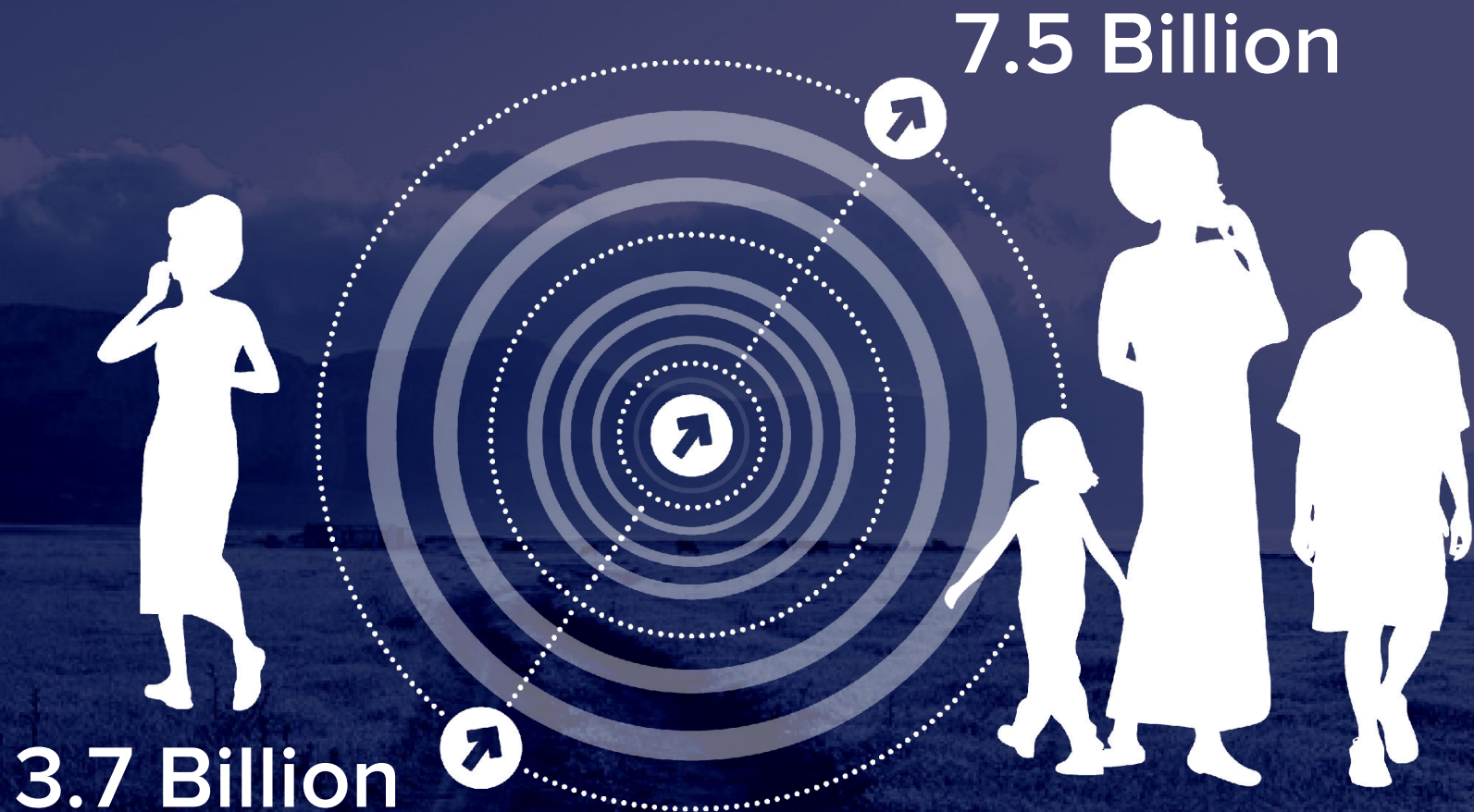
# ICT4D

Information & Communication  
Technology for Development

- mission-oriented
- mobile & cloud based
- health, financial inclusion, agriculture, education, civic engagement, and more



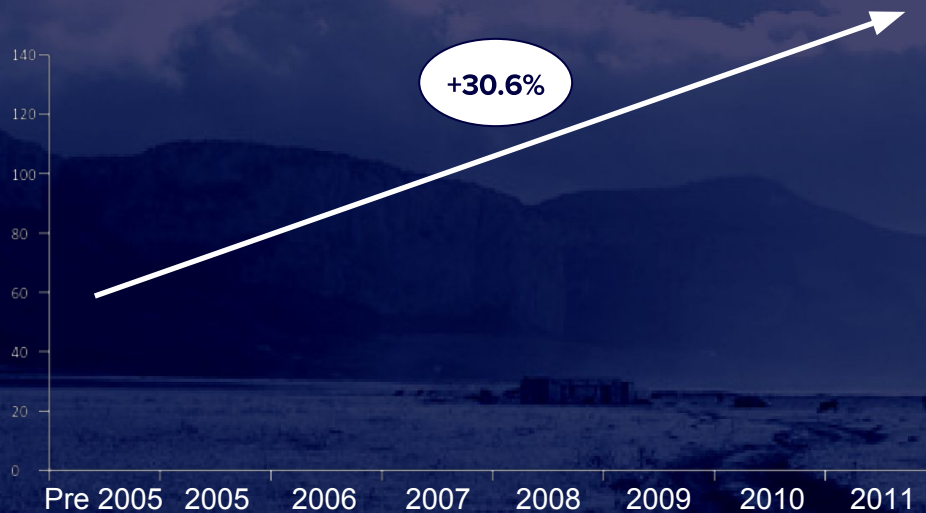
# Why does ICT4D matter?



- Accelerate peoples' awareness, utility and adoption of life-enhancing and life-enabling technology

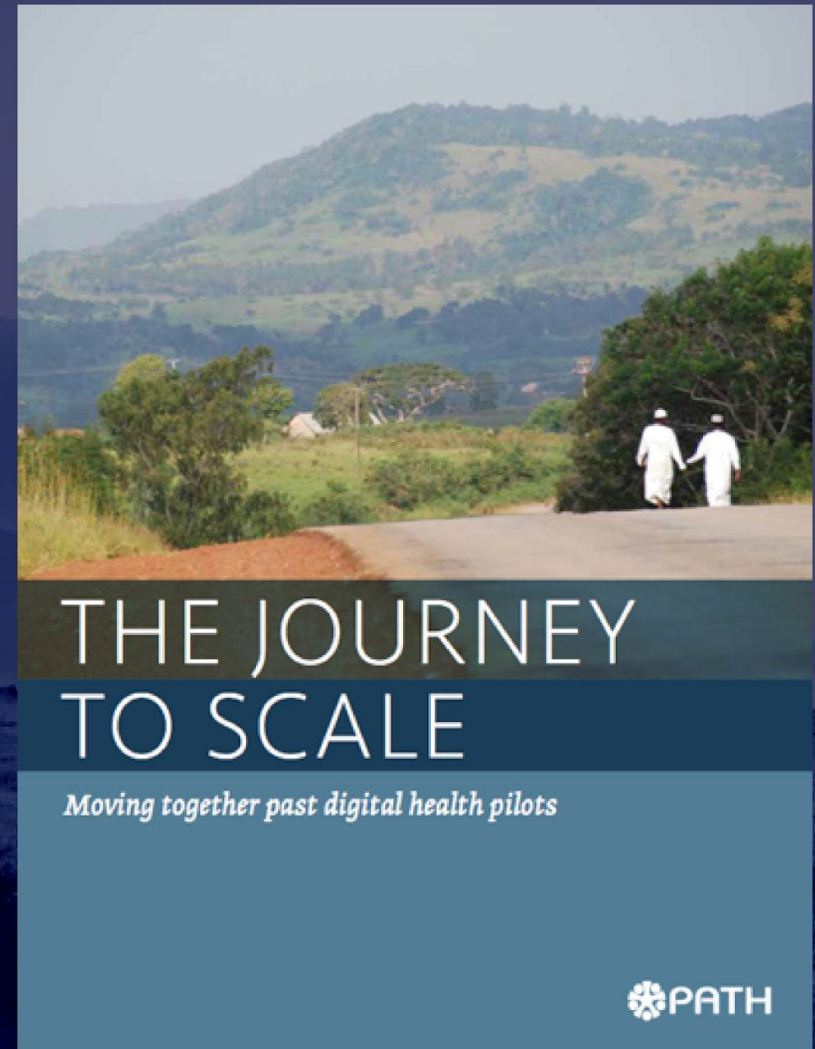
# Why is funding broken?

**Example:** Number of mobile health launches per year



**But, no more than a few have successfully scaled!**

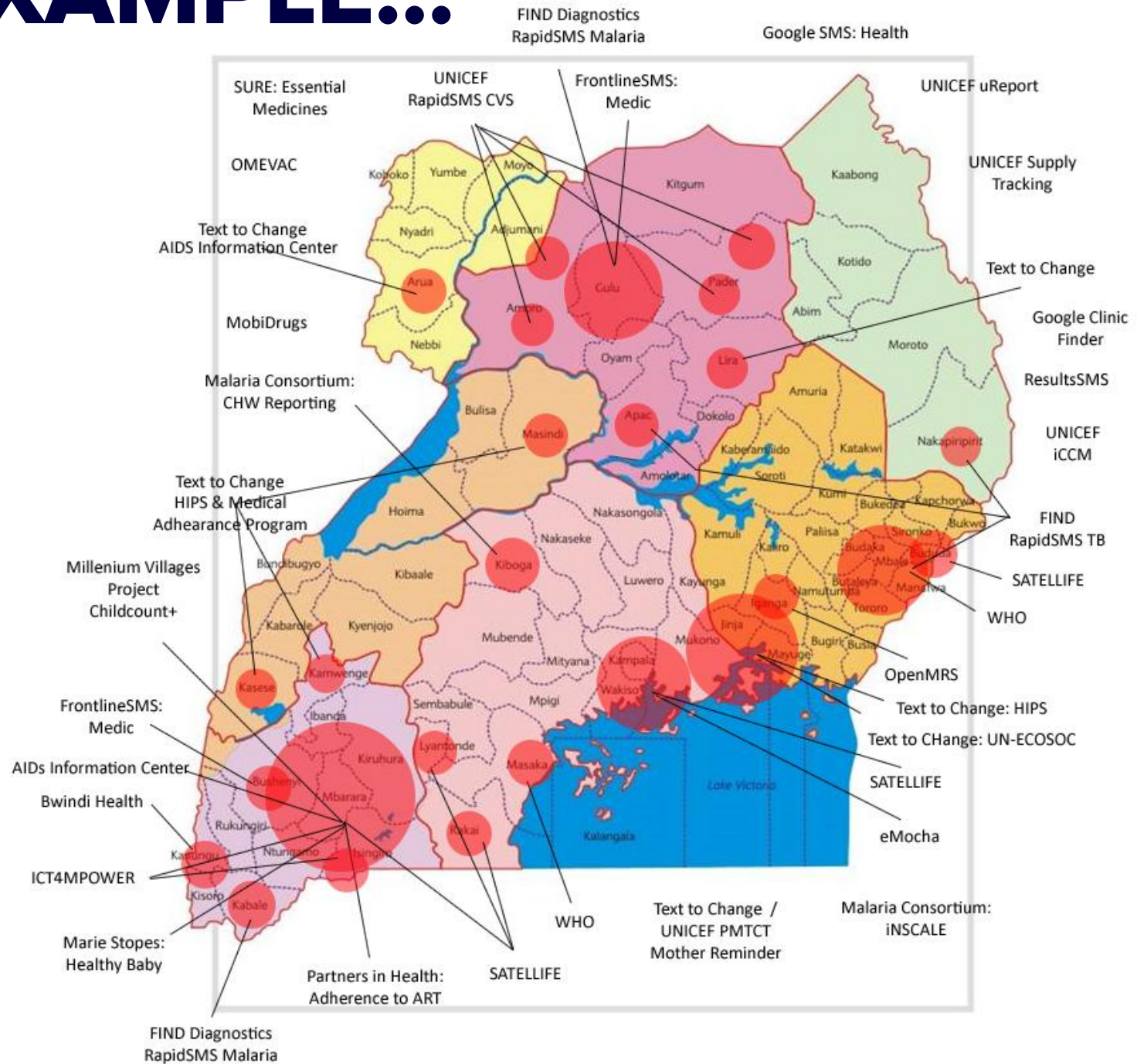
Note: Figures based only on mobile-enabled products and services in developing world tracked by GSMA (including those merged/closed). Excludes services in pipeline with an impending launch  
 Sources: Bill and Melinda Gates Foundation, based on GSMA Mobile for Development Intelligence data; GSMA Mobile for Development deployment tracker, accessed 4 October 2014.



- When technology and data are institutionalized into how partners deliver development services.



# ONE EXAMPLE...





# ONE LAST TIME, IMAGINE ...

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## Roles

## Focus

## Partners

EFFICIENCY + EFFECTIVENESS + SPEED



Convene



Discover



Generate  
Insights



Advocate



Platforms  
and Services



Data for  
Development



Insights and Impact

FOSS  
Projects

Industry

Donors

Government

NGOs

To realize a more inclusive digital  
society in developing markets.

# SUSTAIN?

- Hedge against **maintainer burnout**
- Survive organizational **strategic shifts**
- Catalyze **more resources** for projects
- Minimize **single points of failure**
- Balance **chasing “new & shiny things”**



## 9 Key Recommendations from SustainOSS

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- Create sustainable communities
- Free the maintainer
- Optimize project governance
- Raise value of non-code contributions
- Commit to the commit
- Use money as an incentive
- Recognize, value, and invest
- Lower barriers to manage finances
- Prepare maintainers for future

Read the report: <https://SustainOSS.org>

# Our 10 Key Findings: What Projects Need

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1

Mentorship

2

Consulting/advising

3

Direct assistance

4

Professional services

5

Tactical funding

6

Collaboration facilitation

7

Peer review for proposals

8

Interoperability

9

Community of practice

10

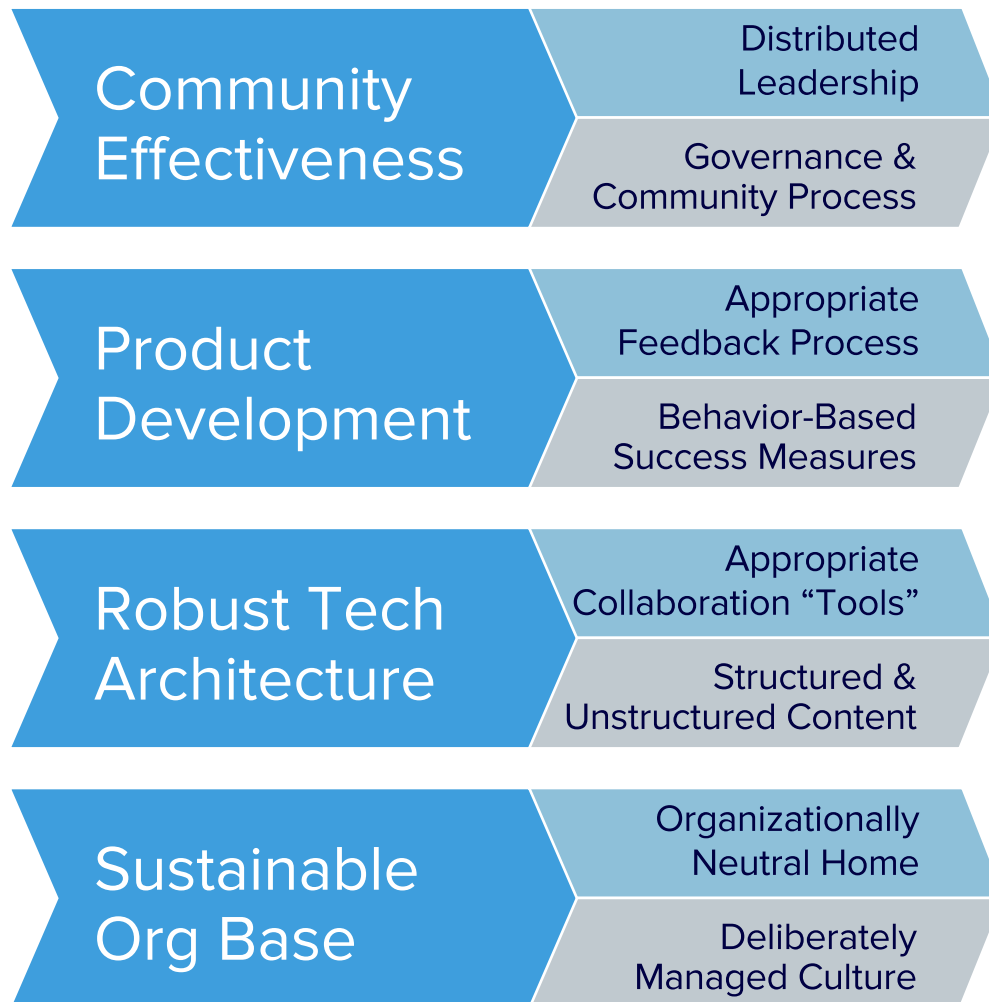
Sharing contributor pools



# 4 Open Source Sustainability Goals

DIAL Open Source Center's vision for software development projects

**CAUTION:  
BUZZWORDS**



**STEADILY INCREASING TRUST →  
SUSTAINABLE PROJECTS**

# 8 reasons sustainability should matter to a project

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1

Continuity

2

Avoid power vacuums

3

Project Longevity

4

Reduce leader “stress”

5

Talent development

6

New member inspiration

7

New ideas & thoughts

8

True meritocracy

Source: “Passing the Baton” by VM Brasseur, FOSDEM 2018 - <http://bit.ly/fosdem-baton>



# co·op·er·a·tive /kō'äp(ə)rədɪv/

*adjective* Involving mutual assistance in working toward a common goal.



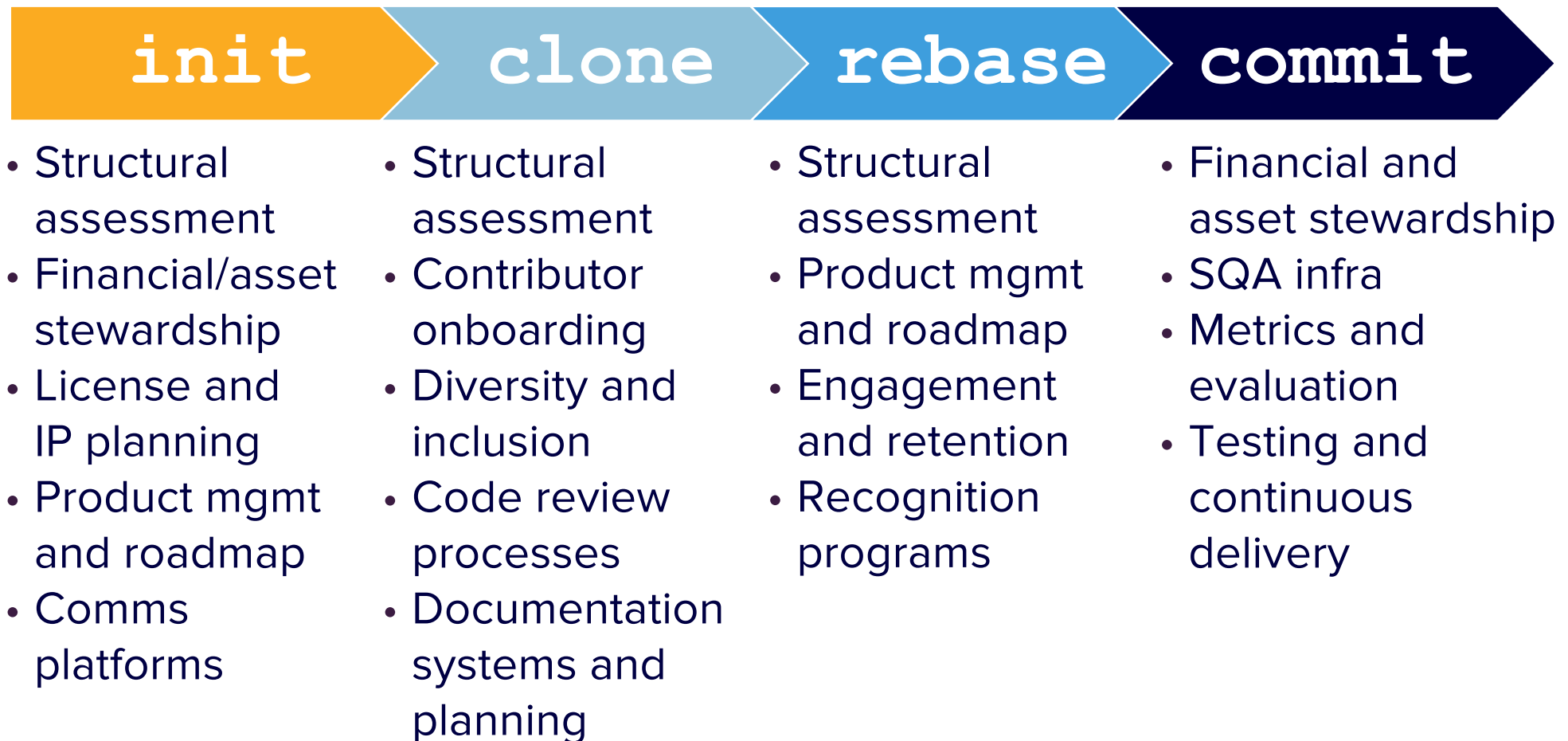


# MISSION

- **Inclusive OSS meta-community** for knowledge sharing, collaboration, and co-investment.
- Support **positive social change**.
- **Overcome key barriers** in conceptualizing, designing, and building T4D software products.
- Collectively build a **public commons**.

# Technical Assistance: Lifecycle-Based

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# Technical Assistance: Need-Focused

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## Financial Stability

Structural assessment  
License & IP planning  
Financial/asset stewardship  
Contributor onboarding  
Code review processes  
Communications platforms



## Contributor Success

Structural assessment  
Engagement & retention  
Diversity & inclusion  
Recognition programs  
Code review processes  
Communications platforms



## Product Optimization

Structural assessment  
Product mgmt & roadmap  
Metrics & evaluation  
Testing/continuous delivery  
SQA tools & systems  
Docs systems/planning



# First Participating Member Projects

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Humanitarian  
OpenStreetMap  
Team



LibreHealth



Bahmni™



OpenLMIS

**SUMSARIZER**



OPEN DATA KIT

- These are our earliest “members” ... we’re actively bringing on more as we speak!

# First Service Delivery & Program Partners

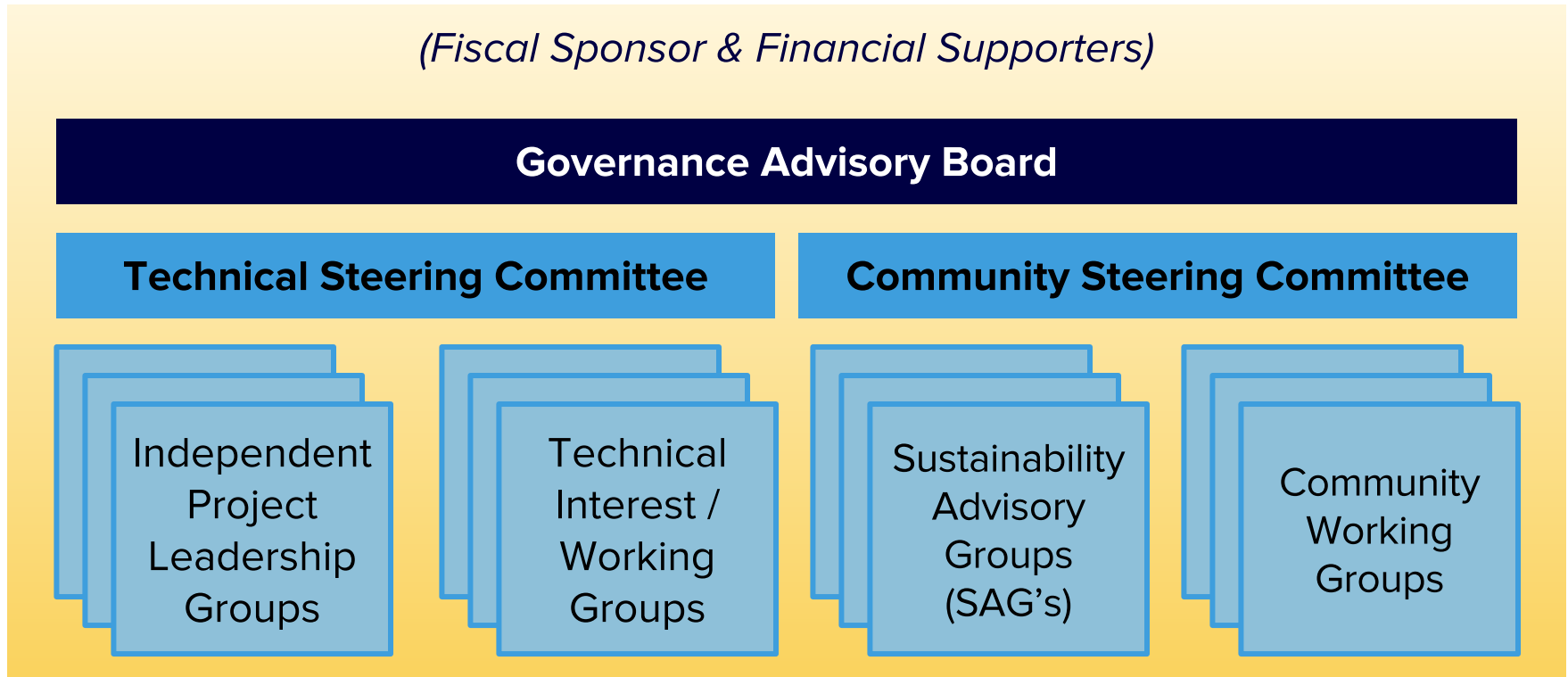
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- Many more strategic partners to come as we grow ... do you have ideas?

# FOSS-Style Program Governance

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- **Key Feature: *Distributed, public, participant-driven decision making***



# And Now The Work Begins: Execution

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1

Mentorship

2

Consulting/advising

3

Direct assistance

4

Professional services

5

Tactical funding

6

Collaboration facilitation

7

Peer review for proposals

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Interoperability

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Community of practice

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Sharing contributor pools

# OUR NEEDS?

- Demand: Identify the **most promising projects**
- Supply: Gathering **financial & in-kind resources**
- Identify more **service delivery partners**
- Recruit more **contributors working across projects**
- Work with donors+projects to develop plans for **long-term program funding**
- Get the word out, aka **marketing**

# SUSTAINABILITY

**“No one has a right to sit down and feel hopeless.  
There is too much work to do.”**

— Dorothy Day

**<http://osc.dial.community>  
[osc@dial.community](mailto:osc@dial.community)**



# Let's Talk: Questions & Ideas

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- Similar programs now or in past?

- What services are we missing?

- Funding models that might work?

- Potential partners or projects?



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