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2022
EUROPE
INTERCHANGE
27-28 APRIL | VIRTUAL EVENT

CORE: a community-driven solution

Sam Hume, DSc
VP, Data Science, CDISC
2022 Europe Interchange

Meet the Speaker

Sam Hume

Title: VP, Data Science

Organization: CDISC

Sam Hume leads the CDISC Data Science team, which collaborates with CDISC staff and stakeholders to develop tools and standards that support clinical and translational data science. Sam directs delivery of the CDISC Library metadata repository that houses all CDISC standards, co-leads the CDISC Data Exchange Standards team, and leads the technical CDISC RWD efforts. He has 25 years' experience in clinical research informatics and has held a number of senior technology positions in the biopharmaceutical industry. He holds a doctorate in information systems.

Transitioning CORE development to be driven by an open-source development model

How does CORE development happen today?
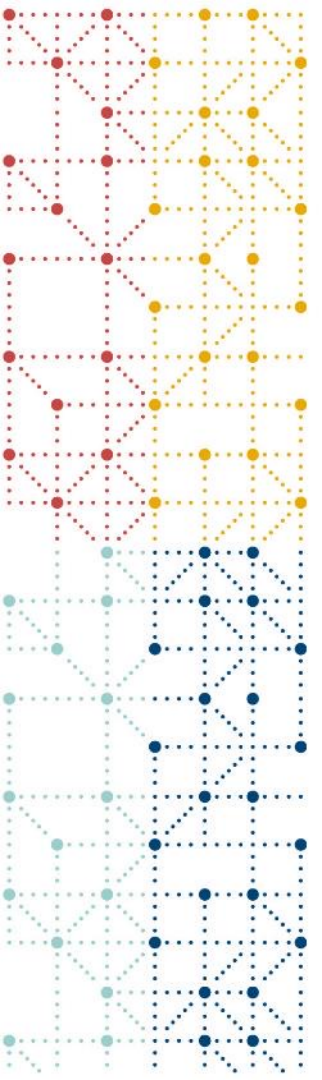
How is an open-source driven community different?

How will we transition from today's development model to an open-source model?

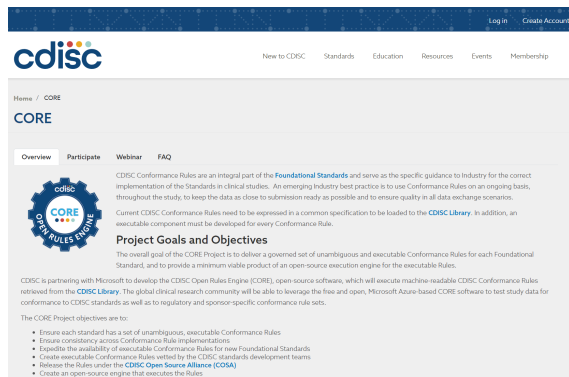When will we transition to an open-source development model?

How does CORE development happen today?

CORE Development Today

Join the Team

https://www.cdisc.org/core
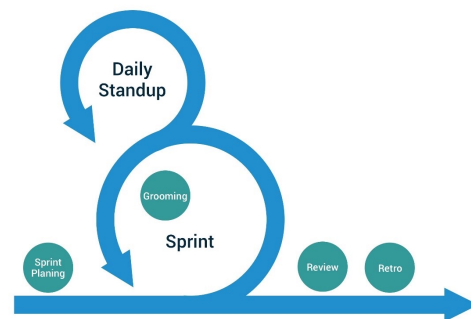
Volunteer for CORE

Environment

Azure DevOps

Process

Scrum Framework

CORE Team Structure

CORE Leadership

- Decision Log
- Prioritize
- Communication

Product Owner
CORE System Architect
Program manager
Software engineering partner
Community leaders

Architecture

- Technical environment
- DevOps

CORE System Architect
CDISC Library Architect
Azure System Administrator
Software engineering partner

CORE Software Engineering DEV team

- **CORE** engine

Software engineering partner
CDISC Data Science
CDISC Community contributors

CDISC Library DEV team

- Load rules
- Surface rules
- Provide API

CDISC VP Data Science
CDISC Data Science team

Conformance Rules DEV team

- Analyze
- Identify
- Maintain

Rule SME Analysts (CDISC)
Rule SME Analysts (Community)
SME programmers (CDISC)
SME programmers (Community)

CORE QA team

- Testing strategy
- Validation plan

Accenture QA SME (co-lead)
CDISC Data Science team
CDISC Standards team
Community Leads
Community members

Scrum of scrums
Agile Methodology

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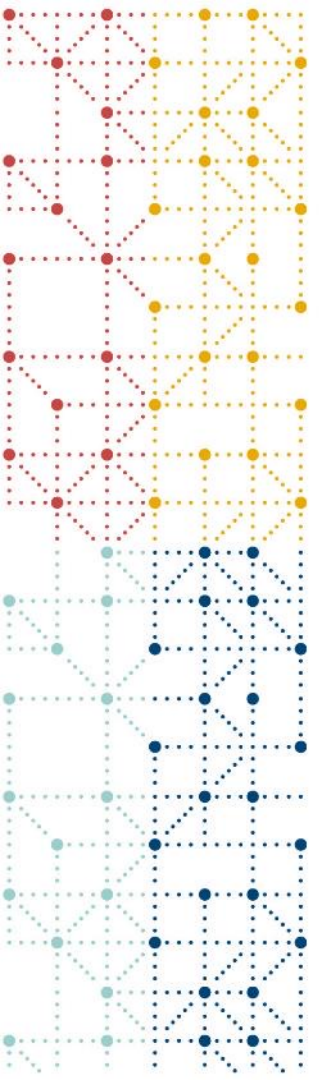
How is an open-source driven community different?

What will make CORE community-driven?

Open-source license

Open-source development model

Open-source governance model

GitHub platform

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CORE license

- MIT license
  - Permissive
  - Simple
  - Widely used
  - Low-risk
  - Works for commercial or non-commercial usage

- Contributors License Agreement (CLA)
  - Will not use a CLA
  - Rely on the GitHub inbound = outbound clause in Terms of Service

- Optimize project for ease of participation and deployment
  - The open-source development model helps ensure sustainability

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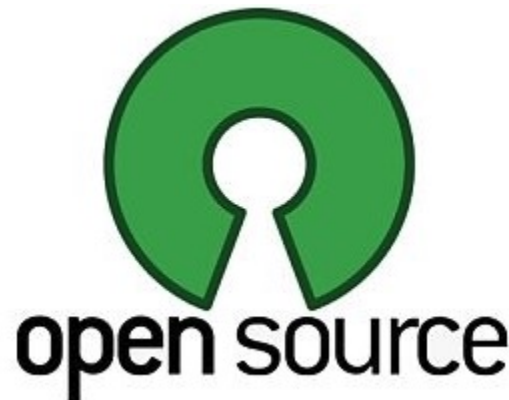
Meritocratic Governance Model

- CORE is a meritocratic, consensus-based community project

- Based on the Meritocratic Governance Model used by the Apache Software Foundation

- Those with interest in the project can join the community, contribute, and participate in the decision-making process

- Influence and leadership roles favor Contributors over Users

- Active participation is valued

From https://opensource.guide/building-community/
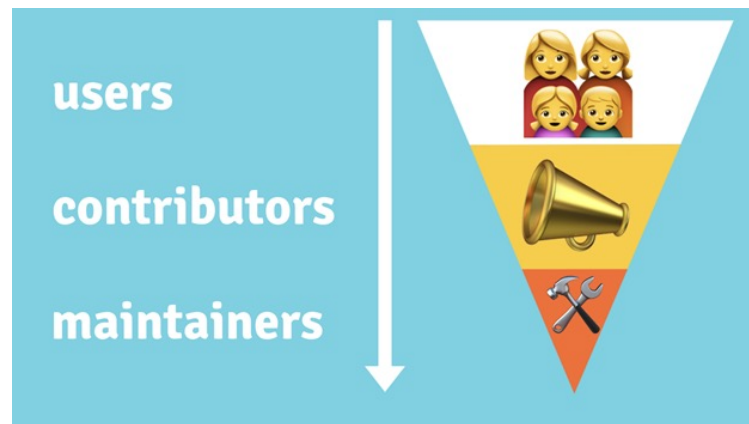
CORE Roles

Users
- Use the software but aren't submitting code, tests, or documentation

Contributors
- Submit code, test, or documentation but need to review and commit their work

Maintainers
- Review and merge contributions and generally run the technical aspects of the project

Governors
- Members of the CORE Roadmap Board or Technical Board

Rule Developers
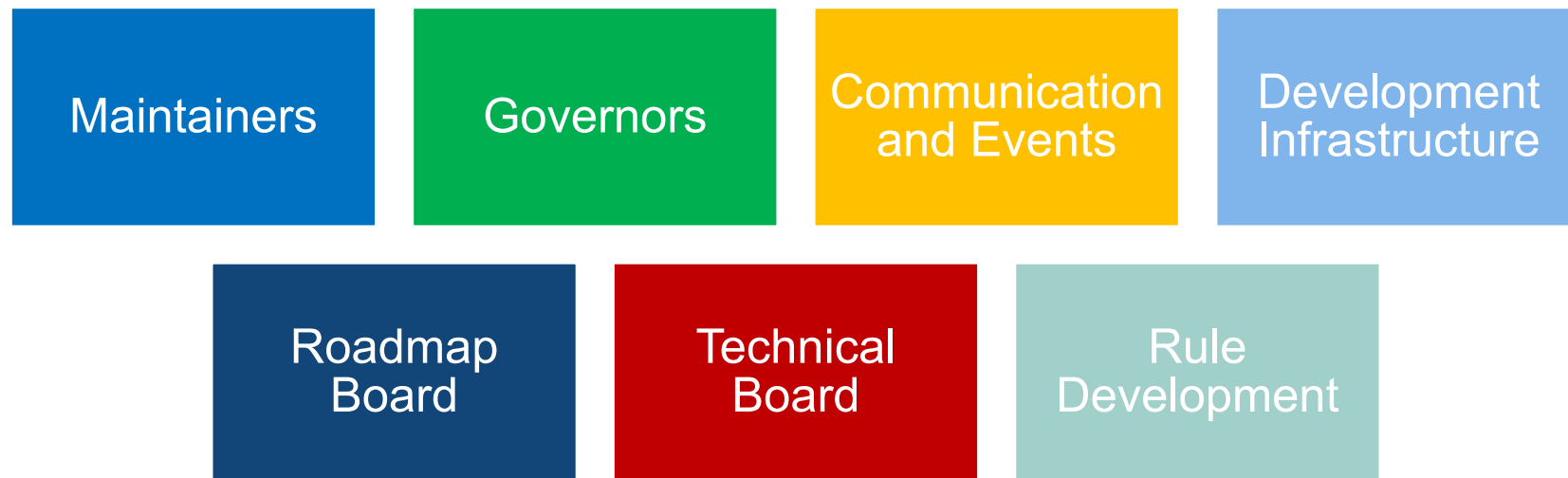- Participate as standards developers creating Conformance Rules

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Governance and Development Organization
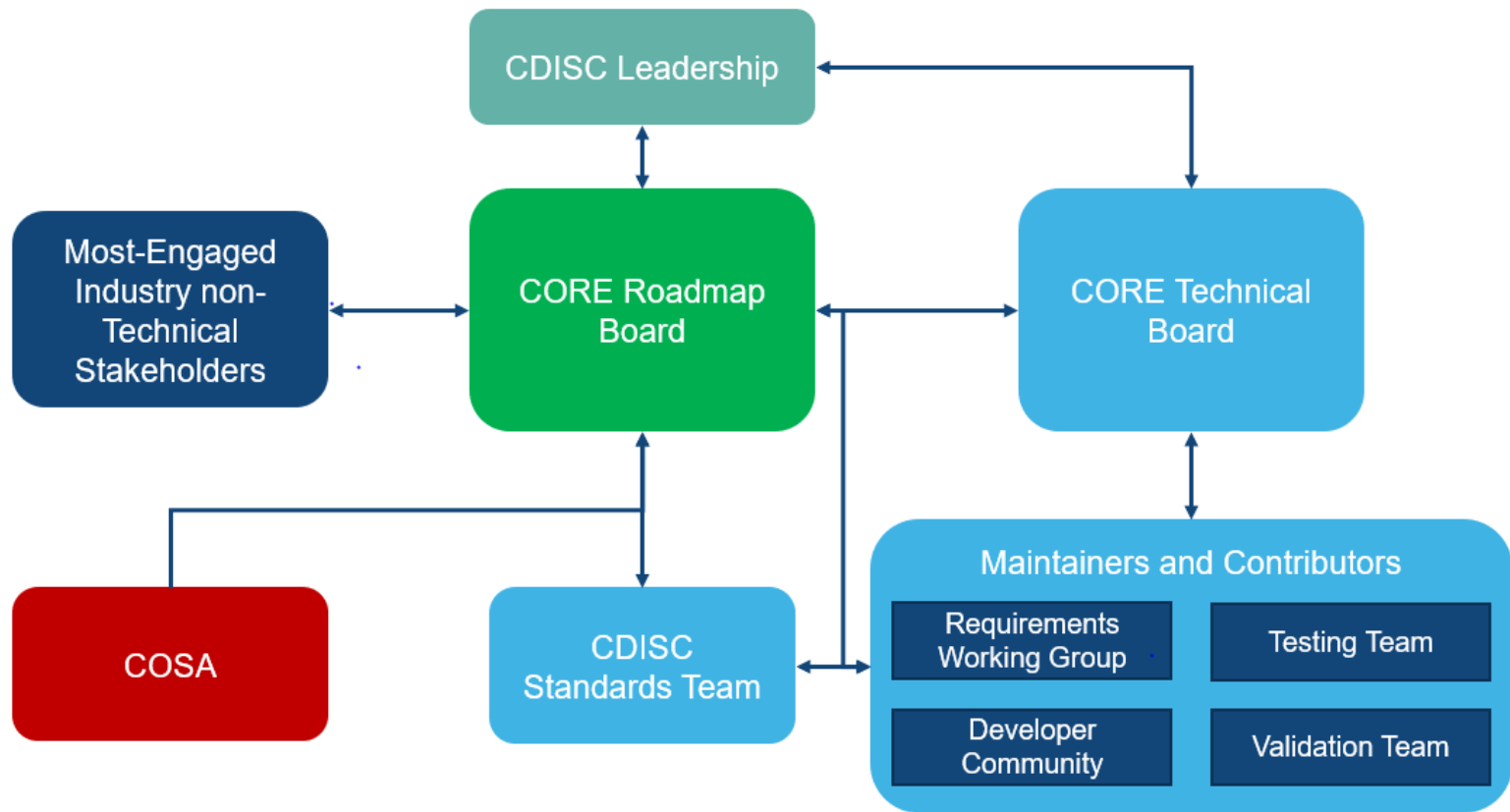
How will we transition from today's development model to an open-source model?

CDISC's Role in the CORE Community

Maintainers

Governors

Communication and Events

Development Infrastructure

Roadmap Board

Technical Board

Rule Development

Content supporting community involvement

User documentation

Developer documentation

Contributor's documentation and on-boarding process

Training and education

Automated testing and test framework

Validation documentation

CDISC hosted evaluation version

Community-based support

CDISC Library Access for All

Unlimited Member Access

- Unlimited Library accounts for members available today
- Deprecating Library Archives

Non-member Access

- Free non-member Library accounts coming for MVP 1.1

Library EULA

- Updated Library EULA drafted
- Removes vendor costs

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Software Development Process

- Scrum?

- Probably more Kanban style with
  - CDISC developers as team members
  - Volunteer team members
  - External contributors that do not function as part of the team

- Heavy reliance on asynchronous work and messaging

- Decentralized contributions + extensive peer review

KANBAN BOARD

Stories	To Do	In Progress	Testing	Done

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CORE as a COSA Member

COSA Mission: The CDISC Open-Source Alliance (COSA) supports, promotes, and sometimes sponsors open-source and free software development projects that create tools for implementing or developing CDISC standards to drive innovation in the CDISC community.

We anticipate CORE will be a COSA member

COSA support and promotion of CORE:
- CORE workshops and hackathons
- CORE conference sessions & webinars
- CORE community building
- Guidance for CORE governance
- Open-source best practices
- Community of open-source developers

https://cosa.cdisc.org/

CORE Community Tools

GitHub

Slack

LinkedIn Group

Azure

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Commercial vendor involvement
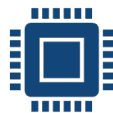
A variety of commercial alternatives

Examples:

Software-as-a-Service

Commercial support

Embedded in commercial software

Deployment and implementation services

Vendors contribute to the open-source community

Examples:

Contributors

Maintainers

Board members

API and Plugin architecture promote tool development

Examples:

Issue Management

Define-XML Authoring

Workflow

CORE Deployment Alternatives

Examples:

Alternative User Interface

On-premises version

Multi-cloud version

Embedded deployment

Alternative rule engine
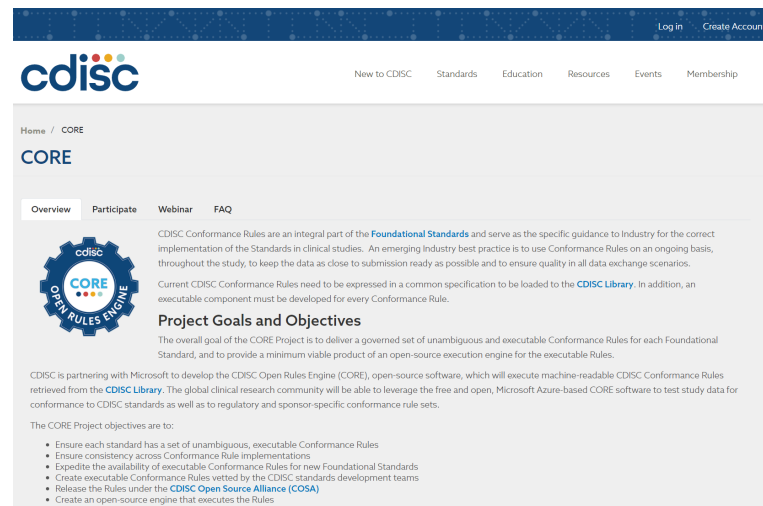
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When will we transition to an open-source development model?

When will CORE be released as open-source?

- Currently planning to release CORE as open-source after the MVP 1.1 release

- CDISC will provide an update after we finalize our MVP 1.1 plans

- Tasks prior to releasing as open-source:
  - Code refactoring
  - Technical documentation
  - Move to GitHub
  - CORE community

- Until then volunteer for the team!

Get Involved!

https://www.cdisc.org/core

Thank You!

Sam Hume

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