The Eclipse Foundation

Enabling Industry Collaboration and Open Innovation

eclipse.org

December 2020
Agenda

> Why Open Source?
> Why Participate?
> About the Eclipse Foundation
> Our Services
> Working Groups
> Research Programs
> The Opportunity
Open source participation is surging
Open source makes up 80-90% of applications

GitHub hosts 100M repositories

GitHub users 40M

Sources: Forrester, GitHub
55% % companies leverage open source in production

65% % firms contributing to open source projects

100% % productivity improvement seen by firms contributing to open source

Sources: Black Duck, Harvard Business School
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Demonstrate good corporate citizenship
Accelerate innovation
Participate in open collaboration
Safeguard investments
Mitigate business risk
Retain and recruit top talent
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The Community for Open Innovation and Collaboration

Community driven.
Code first.
Commercial-friendly.
# Our Unique Approach

<table>
<thead>
<tr>
<th>Feature</th>
<th>GitHub</th>
<th>Single-Vendor Open Source</th>
<th>Eclipse Foundation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Thriving developer community</strong></td>
<td>✔️</td>
<td>✔️</td>
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<td><strong>High quality code</strong> that solves complex problems</td>
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<tr>
<td><strong>Ecosystem development and marketing</strong> services to drive adoption and monetization</td>
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<td>✔️</td>
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<td><strong>Predictable processes and guidance</strong> to deliver large-scale innovation on a regular cadence</td>
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<td>✔️</td>
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<td><strong>Vendor-neutral governance</strong> model to support industry-wide collaboration</td>
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<td><strong>Business-friendly IP and licensing</strong> services to enable commercialization</td>
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<tr>
<td>Category</td>
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<tr>
<td>Projects</td>
<td>375+</td>
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<tr>
<td>Members</td>
<td>330+</td>
<td></td>
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<tr>
<td>Committers</td>
<td>1600+</td>
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<tr>
<td>Lines of Code</td>
<td>240M+</td>
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<tr>
<td>Staff Members</td>
<td>35</td>
<td></td>
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<tr>
<td>Working Groups</td>
<td>15</td>
<td></td>
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</table>
Strategic Focus Areas

- **Cloud Native Java**
- **IoT & Edge**
- **Automotive**
- **Tools**

Eclipse Foundation Services

<table>
<thead>
<tr>
<th>Governance &amp; Processes</th>
<th>Ecosystem Development &amp; Marketing</th>
<th>IP Management &amp; Licensing</th>
<th>Infrastructure</th>
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</thead>
</table>
### Strategic Focus Areas - What We Do

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td><strong>Cloud Native Java</strong></td>
<td>We provide a collaborative environment for the world's leading Java ecosystem players to advance open source enterprise Java technologies for the cloud.</td>
</tr>
<tr>
<td><strong>IoT &amp; Edge</strong></td>
<td>We enable industry leaders to collaborate on an end-to-end IoT architecture that is secure, flexible, and fully based on open source and open standards.</td>
</tr>
<tr>
<td><strong>Automotive</strong></td>
<td>We provide leading automotive OEMs, their suppliers, and partners with a sustainable, transparent, and vendor-neutral platform to collaborate on open technologies and standards.</td>
</tr>
<tr>
<td><strong>Tools</strong></td>
<td>The Eclipse IDE is the critical development environment for more than 6 million active users. Our community is innovating on the next generation of cloud native developer tools.</td>
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</table>
Open Source Innovation for Cloud, Edge and AI

The Eclipse Foundation is home to industry standards and an open source stack for building and running enterprise applications and workloads from the Cloud to the Edge.
Eclipse Foundation Core Services

- Governance & Processes
- Ecosystem Development & Marketing
- IP Management & Licensing
- Infrastructure
The Growing Eclipse Foundation Member Community
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Governance & Processes

- Community of Practices: Eclipse Development Process
- Vendor-neutral governance structure
  - Legal entity, bylaws, member agreement, anti-trust policies
- Well defined project lifecycle
- Technical decisions made by project leadership
Infrastructure

> Professionally managed open source forge
  - Git, Gerrit, Jenkins, download servers, website hosting
  - Scalable and repeatable build service
  - SLA for 99.98% uptime

> Flexibility to use Github
IP Management & Licensing

> Management of Committer Agreement and CLA
  • Provenance and License Compatibility (no GPL or AGPL)

> Trademark stewardship for projects, working groups, and industry initiatives
Ecosystem Development & Marketing

> Business development staff to assist with recruitment
> Professional marketing staff
> Event planners
Our Impact: Open Innovation at Industrial Scale

**Governance Layer**
The Eclipse Foundation provides an open, vendor-neutral development environment to enable collaboration.

**Collaboration Layer**
Technology Producers jointly define roadmap and build core capabilities.

**Competition Layer**
Commercial Adopters focus resources on rapidly building differentiating features.

Requirements & Use Cases

Value Line

Product-Ready Technologies

$13+ billion
of shared investment to date
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A Sustainable, Business-Friendly Ecosystem

Projects & Working Groups

Value Creation

Business Models
Eclipse Foundation Working Groups

> Provide an open and vendor-neutral governance framework for collaborative development
> Enable industry collaboration and coordination across many open source projects
> Extend the best practices of the Eclipse Development Process
> Support the shared development of requirements, specifications, marketing strategy, test environments, security policies, etc.
Key Functions of Working Groups

- Requirements gathering across open source projects and organizations
- Creating and committing to long term multi-project roadmaps
- Architectural discussions and collaboration across open source projects
- Testing and certification of industry platforms
- Funding of joint development
- Ecosystem and community development
Working Groups at a Glance
AsciiDoc Working Group

The AsciiDoc Working Group drives the standardization, adoption, and evolution of AsciiDoc. This group encourages and shapes the open, collaborative development of the AsciiDoc language and its processors in order to provide a lexicon for authoring technical content and a common interface for AsciiDoc-compatible applications and services.
Eclipse Cloud Development (ECD) Tools Working Group

The Mission of the ECD Tools Working Group is to define and build an ecosystem of best-in-class open-source Web and Cloud-based development tools, and to promote and drive the broad adoption of these tools.

Projects:

- Eclipse Che
- THEIA
- dirigible
- codewind
- Orion
- JKube
- Open VSX Registry
Edge Native Working Group

The Eclipse Edge Native Working Group drives the evolution and broad adoption of Edge Computing-related technologies.

Edge Native Working Group Projects:
Eclipse IoT Working Group

The Eclipse IoT Working Group provides the open technology needed to build IoT Devices, Edge Gateways and Cloud Platforms.

IoT Projects:
Jakarta EE Working Group

Powered by participation, Jakarta EE is focused on enabling community-driven collaboration and open innovation for the cloud.

- Builds the community
- Approves Specifications
- Drives the Jakarta EE brand
- Establishes the technical roadmap
- Ensures compatibility
MicroProfile Working Group

The MicroProfile Working Group is an open forum to optimize enterprise Java for a microservices architecture by innovating across multiple implementations and collaborating on common areas of interest with a goal of standardization.

The community is working on a plan for deeper alignment between Jakarta EE and MicroProfile.
OpenADx Working Group

The OpenADx Working Group is centered around the autonomous driving toolchain and aims to bring transparency and better integration capabilities into the autonomous driving tool space.

OpenADx Working Group Projects:

- Eclipse Cloe
- Eclipse Cyclone DDS
- icyryx
openMDM Working Group

The openMDM® Working Group fosters and supports an open ecosystem providing tools and systems, qualification kits and adapters for standardized and vendor-neutral management of measurement data.

openMDM Working Group Project:

MDM|BL
openMobility Working Group

The openMobility Working Group shapes and fosters the development of required software tools and frameworks based on validated mobility models in order to provide a common platform for industrial applications and academic research.

openMobility Working Group Project:

SUMO
openPASS Working Group

The Eclipse openPASS Working Group specifies and builds core frameworks and modules for the prospective evaluation of advanced driver assistance systems and partially automated driving functions with respect to traffic safety.

openPASS Working Group Project:

sim@openPASS
Science Working Group

The Eclipse Science Working Group works to solve the problems of making science software inter-operable and interchangeable.

Science Working Group Projects:

- Eclipse ChemClipse
- Eclipse XACC
Sparkplug Working Group

The Eclipse Sparkplug Working Group seeks to drive the evolution and broad adoption of the Eclipse Sparkplug protocol and related technologies that enable the creation of open, collaborative, and interoperable Industrial IoT (IIoT) solutions.

Sparkplug Working Group Project:
Tangle EE Working Group

Tangle EE Working Group will drive the adoption of IOTA's underlying network, the Tangle, and explore key IOTA use case areas including decentralized identity, data integrity and feeless payments.

Tangle EE Working Group Projects are to be determined.
Structure of Eclipse Working Groups

> Eclipse Foundation Members can join an Eclipse Working Group

> Eclipse Working Groups have at least two tiers of members:
  • Steering Committee members
  • Participant Members

> Eclipse Working Group Steering Committee:
  • Approve Working Group Charter
  • Set Working Group Budget and Fees
  • Establish Working Group Committees: Requirements, Architecture, etc.
Starting an Eclipse Working Group

> Define vision and scope
> Create a Working Group Charter
> Secure initial list of participants
> Establish initial budget and fees
Resources Required to Get Started

> Management and leadership
> IT Services to create and maintain website
> Community management services to assist with outreach and events
> Project management to assist with work group meetings, onboard new members, facilitate collaboration
> Ecosystem development to recruit new members
> Typical cost $200K-$300K/year but will grow depending on services required
> Funding driven by working group membership fees
The Eclipse Foundation as a Research Catalyst

- **Products & Expertise**
- **SME**
- **Industrialization**
- **Technology Transfer**
- **Open Source**
- **Innovation**
- **Researchers**
- **Prototypes**
- **Inject Requirements**
- **Large Organization**
Research Projects: Funding Organizations
Research Projects
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Join Us!

Become an Eclipse Foundation Member

Join an Eclipse Foundation Working Group

Participate in open collaboration and innovation
To learn more, or to participate visit: eclipse.org

or connect with us at: membership@eclipse.org
Thank you!