Apache Flink and the Apache Way

Fabian Hueske

FLINK FORWARD # ASIA
实时即未来 **#** Real-time Is The Future
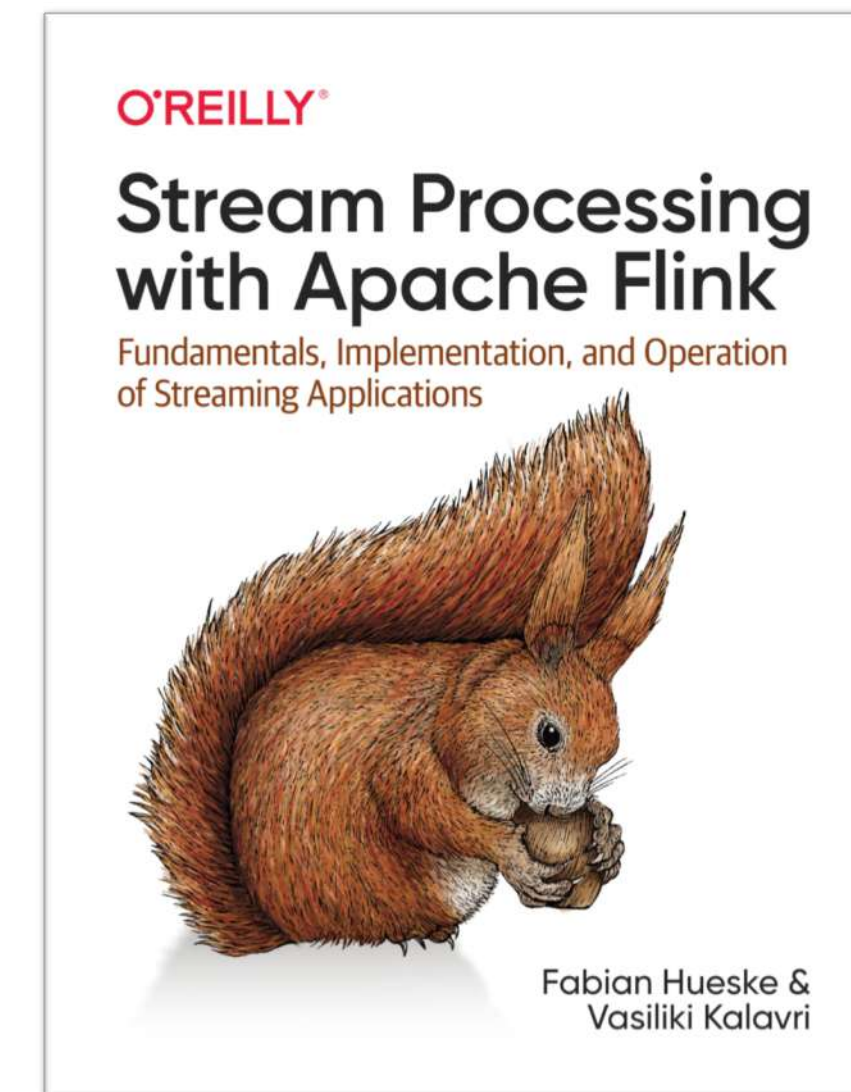
FLINK FORWARD

About me – Fabian Hueske

个人简介

- **Apache Flink PMC Member and with the project since the start.**
  [Apache Flink 的PMC成员，项目最早期的参与者]

- **Co-Author of "Stream Processing with Apache Flink".**
  [《基于Apache Flink的流处理》的作者之一]

- **Co-Founder and Software Engineer at Ververica.**
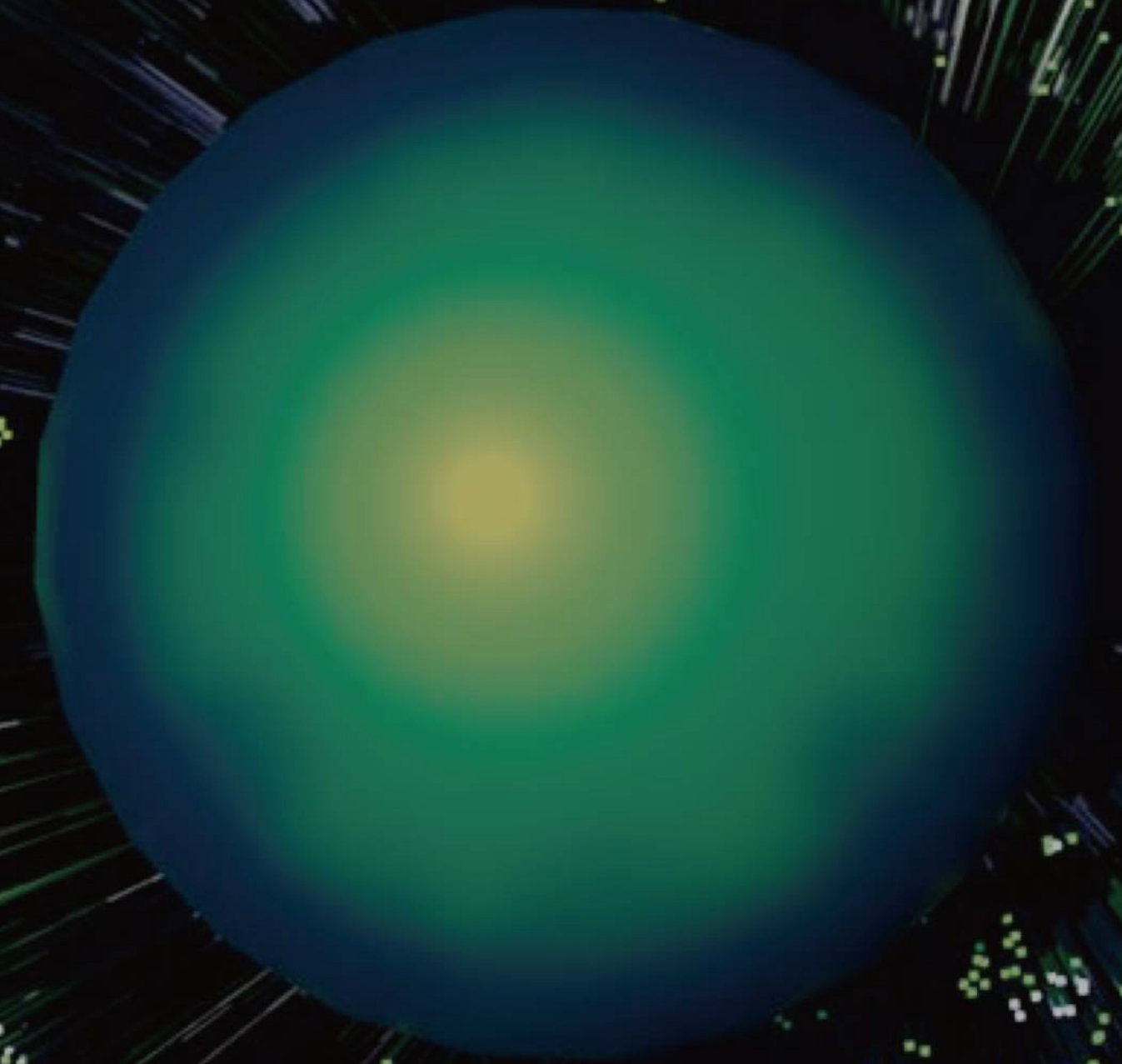 [Ververica联合创始人，软件工程师]

Goals of This Talk

[本次演讲的目的]

- **Introduce the Apache Software Foundation**
  [介绍Apache软件基金会]

- **Explain the Apache Way and how Apache projects are managed**
  [解释Apache之道和Apache项目的管理模式]

- **Talk a bit about Apache Flink's history**
  [简单聊一聊Apache Flink的历史]

- **Give guidance and encourage to contribute to Apache Flink**
  [指导和鼓励大家参与贡献Apache Flink项目]

The Apache Software Foundation

The Apache Software Foundation in Numbers

[从数字看Apache软件基金会]

- **Largest Open Source organization of the world**
  [全世界最大的开源组织]

- **300+ projects and sub-projects, 50+ incubating projects**
  [300+的项目和子项目，50+的孵化项目]

- **7000+ committers, 730+ members, all volunteers**
  [7000+的提交者，730+的成员，都是以志愿方式参与]

- **3200 committers changed 78 million lines of code in 2018.**
  [2018年有3200名提交者贡献了7800万行代码]

FLINK
FORWARD

Mission of the Apache Software Foundation

[Apache软件基金会的任务]

*"The mission of the Apache Software Foundation (ASF) is to provide software for the public good.
We do this by providing services and support for many like-minded software project communities
of individuals who choose to join the ASF."*

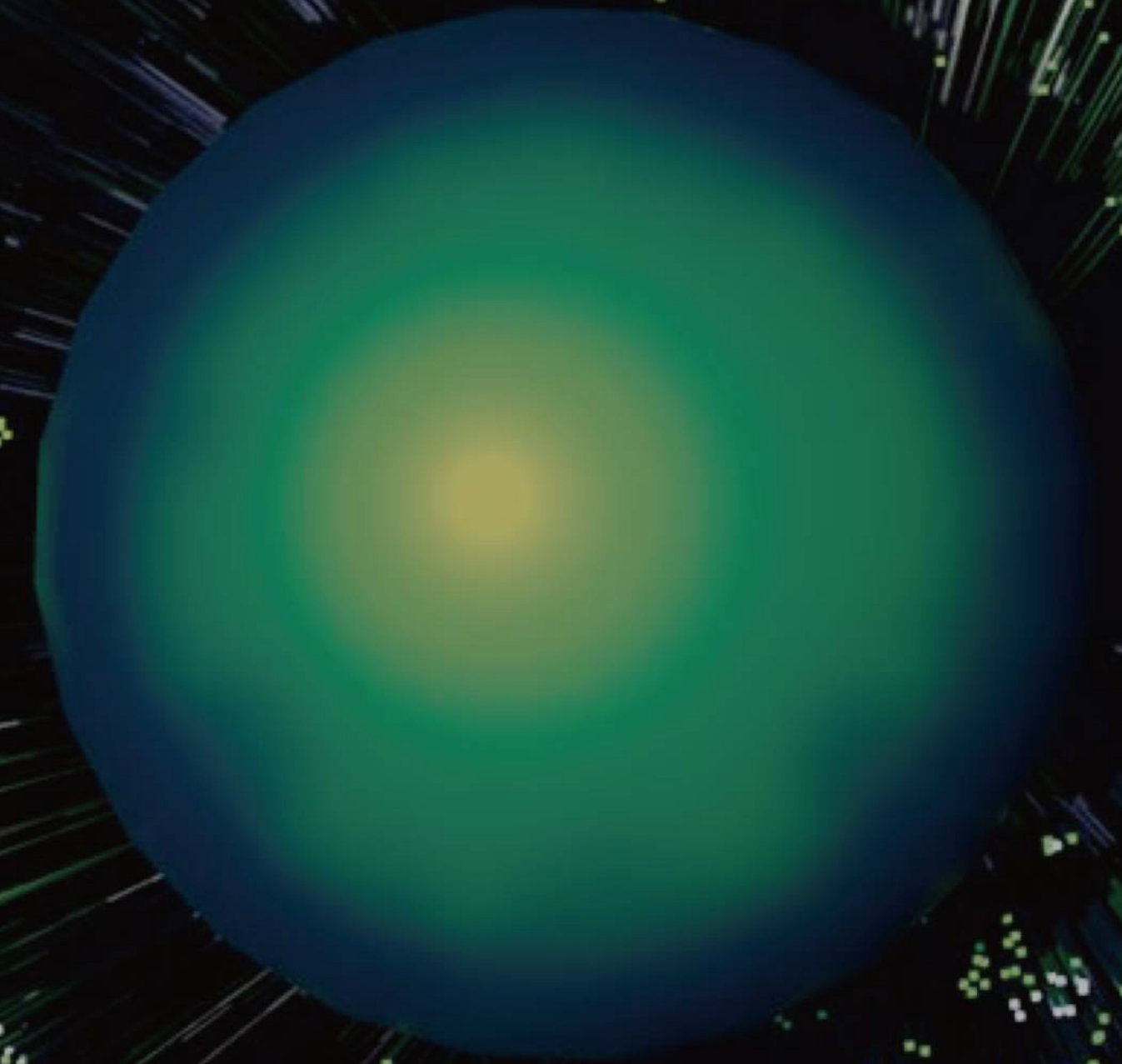[Apache软件基金会（ASF）的使命是为公众提供软件。为了实现这个使命，我们向很多选择加入ASF的志趣相投软件项目社区提供服务和支持。]

• The ASF is a nonprofit charitable organization and strictly vendor neutral.
[ASF是一个非盈利性慈善组织，严格保持厂商中立]

• **Provides infrastructure & legal framework for open source projects.**
[为开源项目提供基础设施和法律框架]

The Apache Way

The Apache Way

[Apache之道]

- **Community over Code! Non-code contributions are valued a lot!**
  [社区重于代码！非编码的贡献非常重要！]

- **Project decisions by people who contributed to the project. Everyone acts as an individual.**
  [项目由贡献者决策。每个人都作为独立个体参与。]

- **Discussions and decisions happen on open and archived mailing lists. Aiming for consensus!**
  [在开放和会被归档的邮件列表中讨论和决策，目标是为了达成一致。]

- **Software belongs to the ASF and is released under the Apache License V2.**
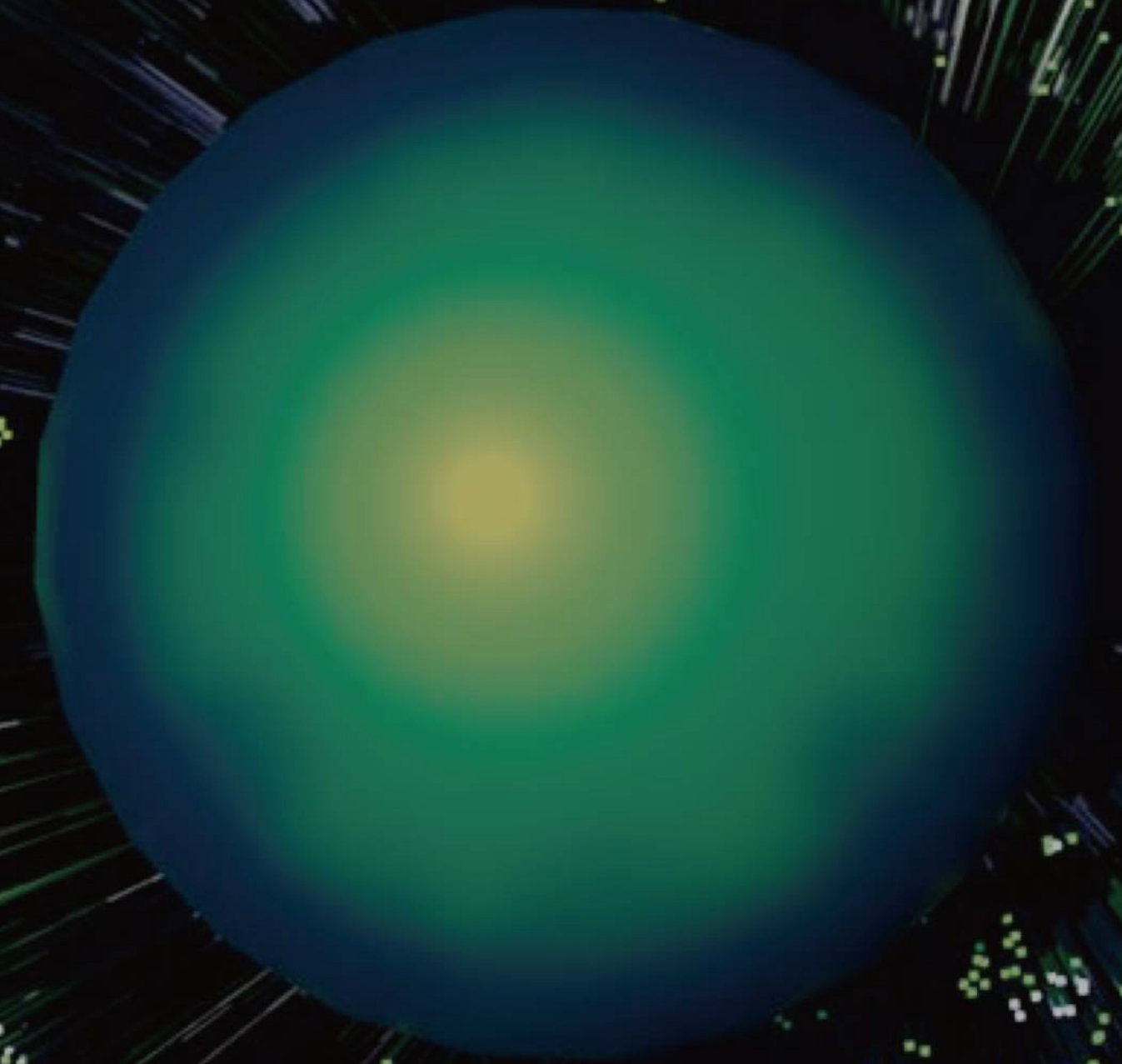 [软件归ASF所有，依照Apache 许可 V2发布。]

The Apache License V2

[Apache License V2许可]

- **Very popular open source license (TOP 3).**
  [非常流行的开源许可（前3名）。]

- **Business friendly license. Commercial use, modification, and distribution are allowed.**
  [许可对商业化非常友好，允许商业化使用、修改和分发。]

- **Users cannot hold the ASF liable or use Apache's trademarks.**
  [用户不能承担ASF法律责任或使用Apache商标。]

What is an Apache Project?

What is an Apache Project?

[什么是Apache项目]

- **A project consists of a community that develops an open source software.**
  [每个项目都由负责开发某一开源软件的社区组成]

- **The project is managed by its Program Management Committee (PMC).**
  [程序管理委员会（PMC）负责管理项目]

- **The project has its own community processes and "rules" but follows the principles of the Apache Way.**
  [每个项目都可以有自己的流程和"规则"，但必须遵循Apache之道]

- **Apache projects are independent of each other.**
  [Apache不同项目之间相互独立]

Roles in an Apache Project's Community

[Apache项目社区的角色分工]

- **PMC Member**
  [PMC成员]

- **Committer**
  [提交者]

- Contributor
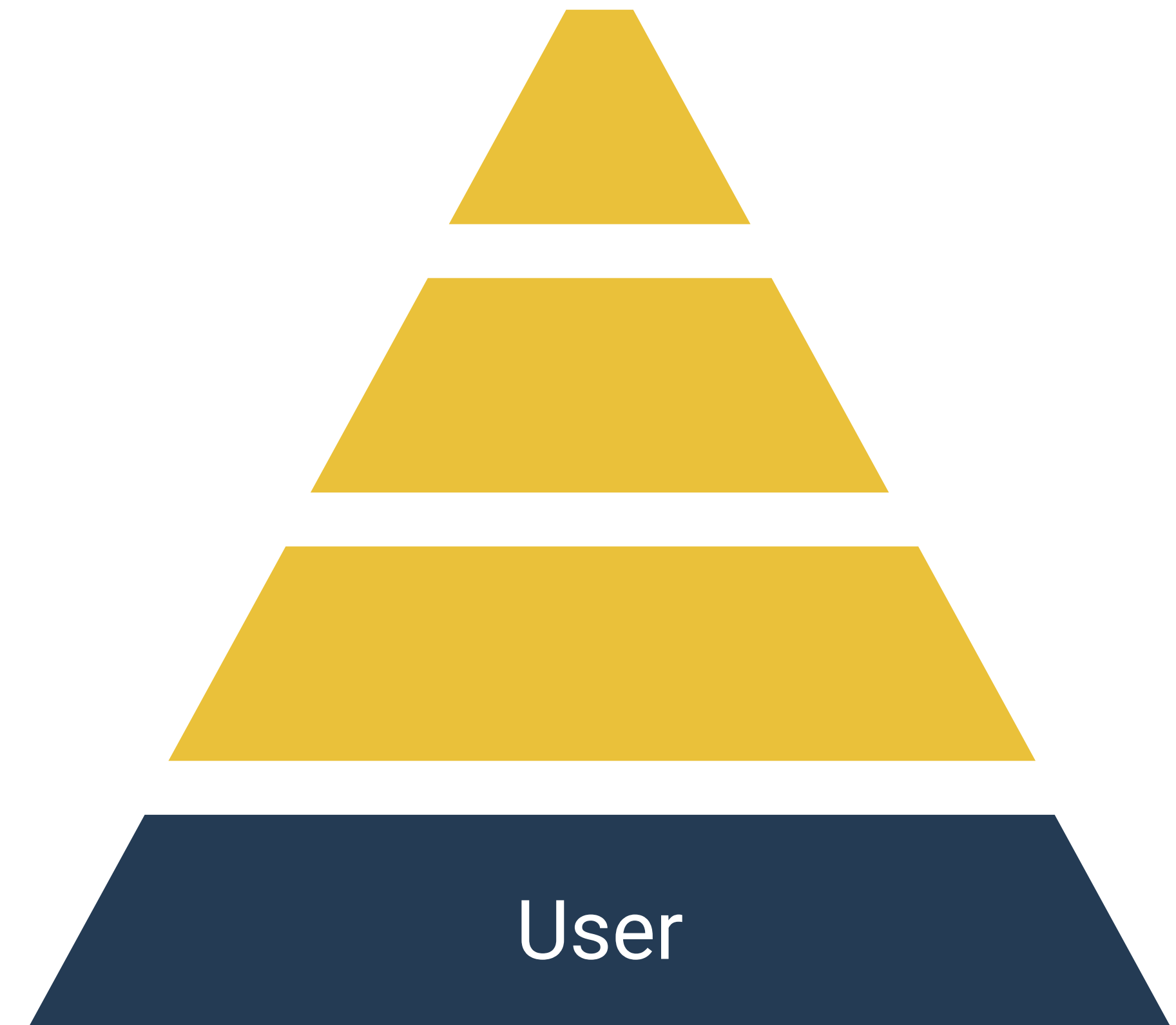 [贡献者]

- User
  [用户]
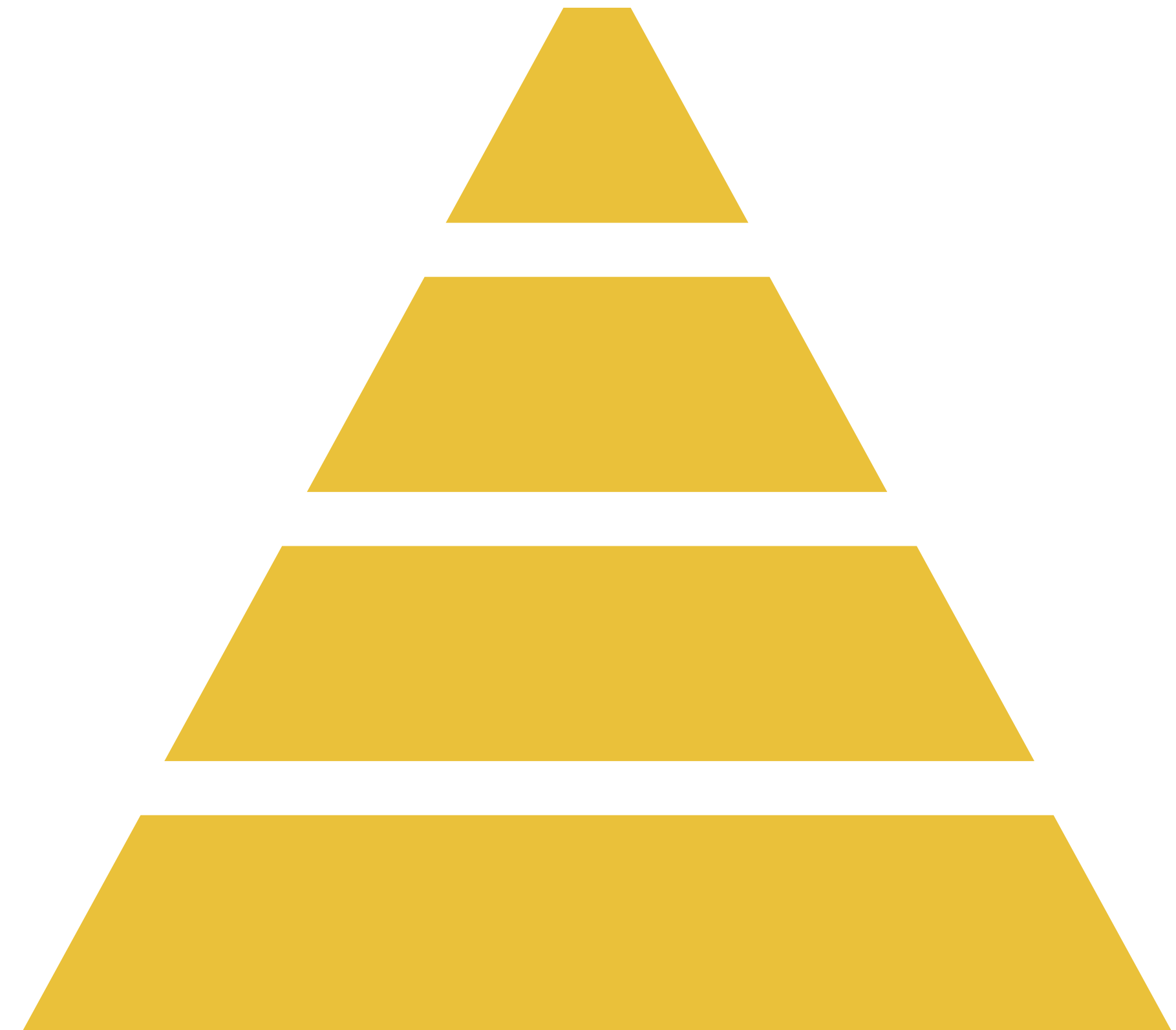
User

[用户]

- **Uses the software of the project.**
  [使用这个项目发布的软件]

- **Can ask questions on the mailing list (or somewhere else).**
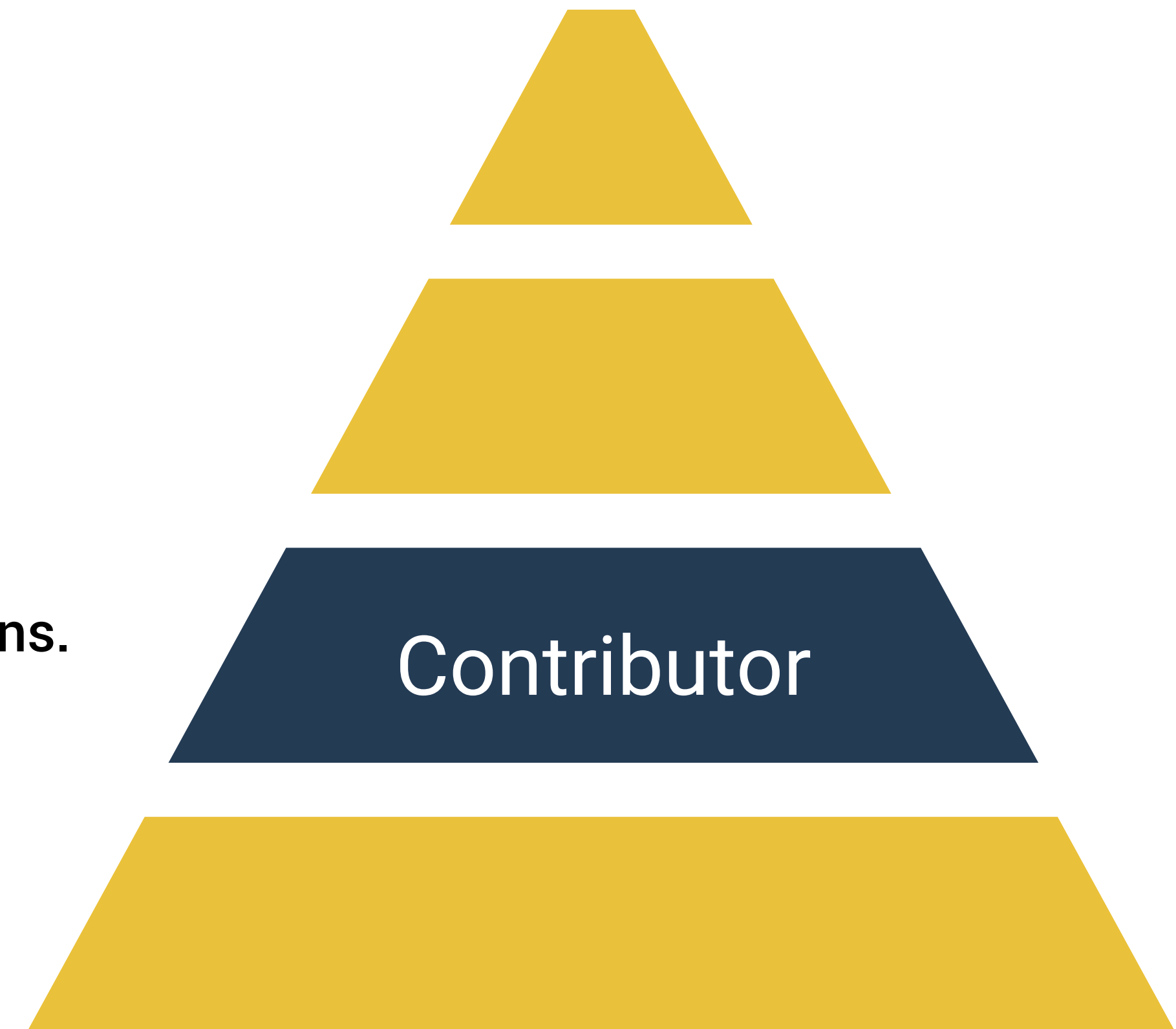 [可以在邮件列表或以其他途径询问问题]

Contributor

[贡献者]

- **Contributes to the community or software.**
  [贡献社区或软件]

- **Contributes source code or documentation.**
  [贡献源码或文档]

- **Reports bugs, answers user questions, participates in discussions.**
  [提交Bug，解答用户问题，参与讨论]

- **Helps growing the community (talks, blog posts, …).**
  [通过演讲、博客等方式帮助发展社区]
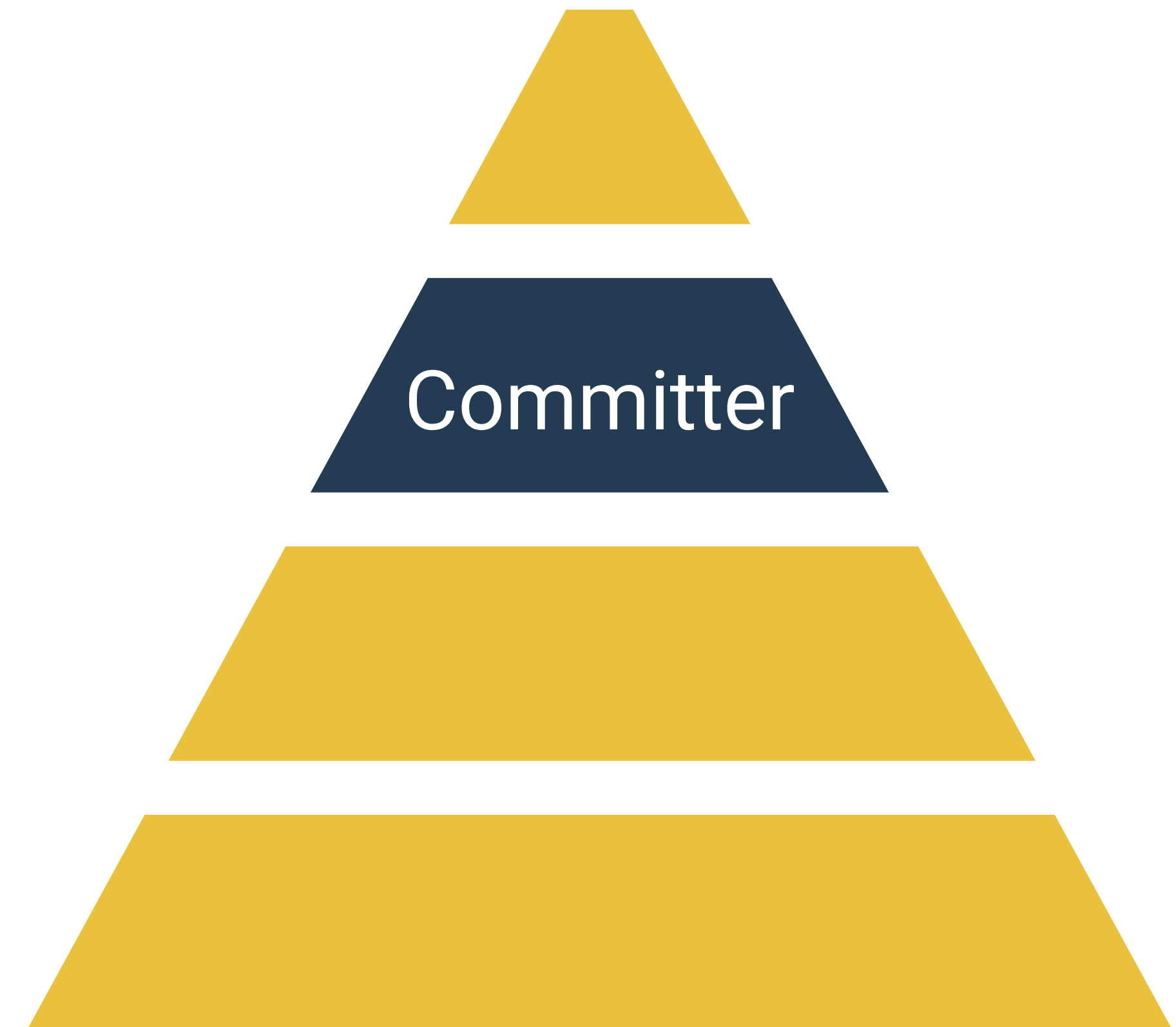
Contributor

Committer

[提交者]

- **Has write access to the project's code repository.**
  [对项目代码库有写权限]

- **Can merge contributions of other community members.**
  [可以合并其他社区成员贡献的代码]

- **Earned merit by contributing (not just code!).**
  [通过不断贡献（不仅限于代码）获得]

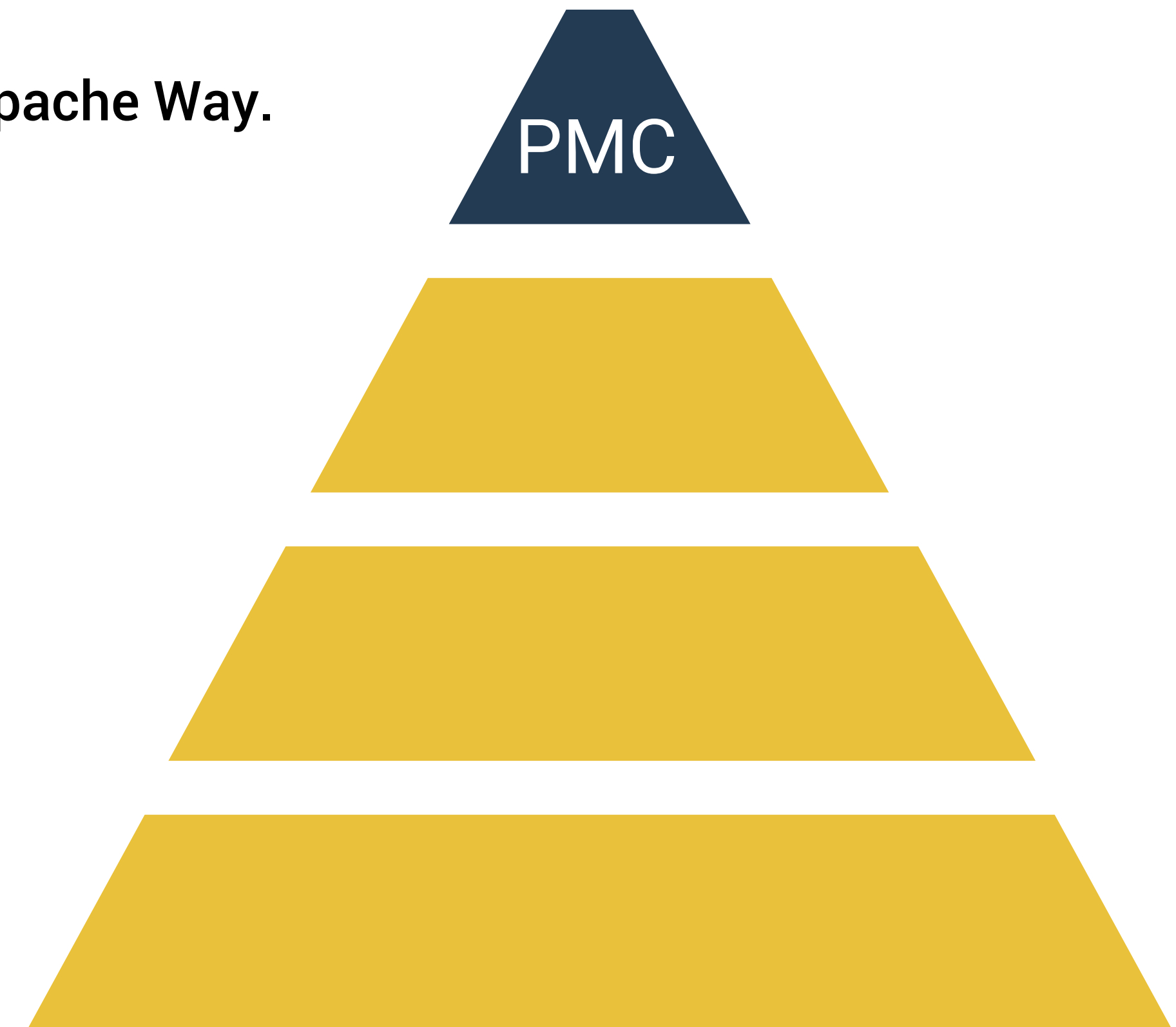- **Has an @apache.org email address.** ☺
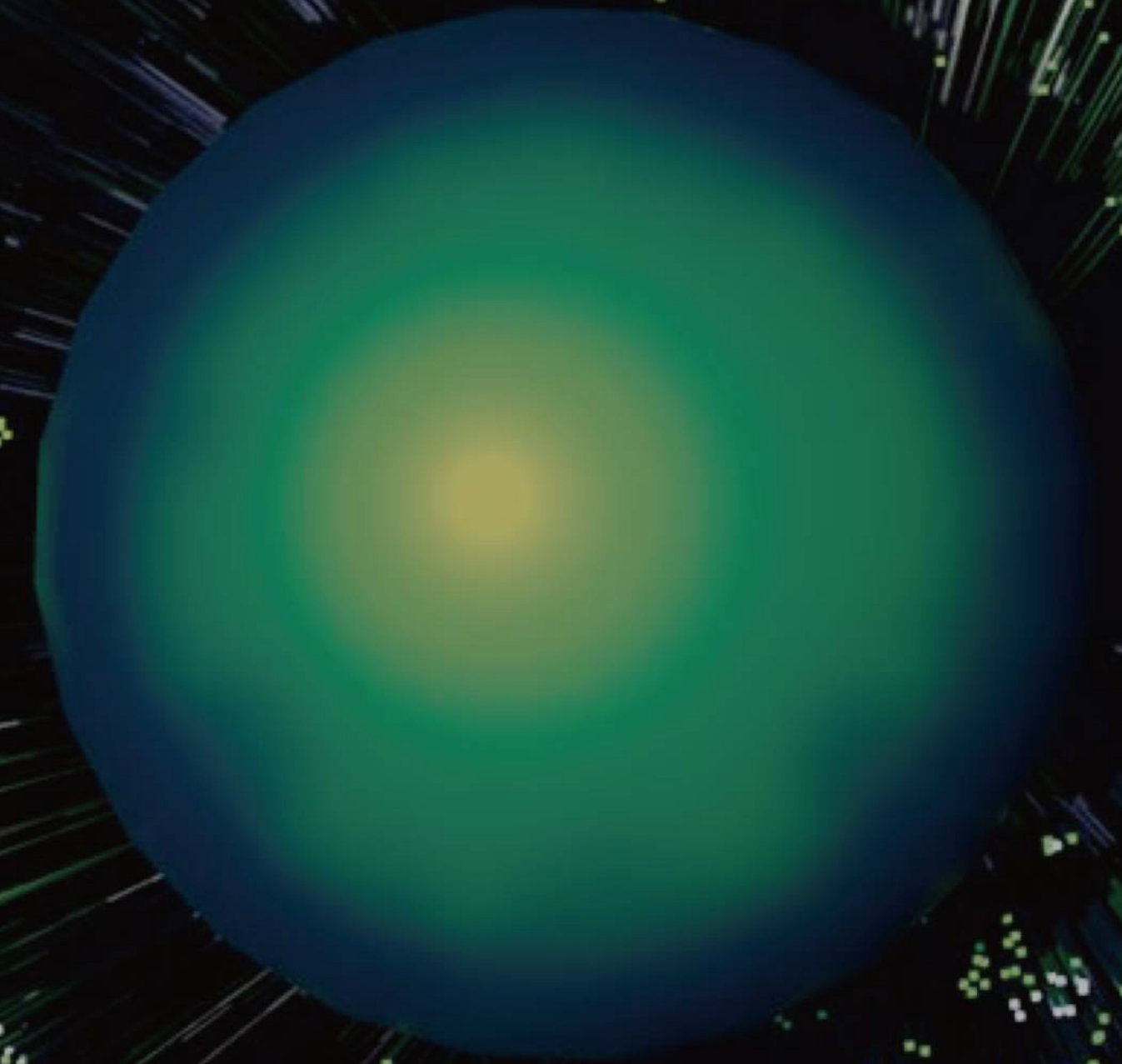 [拥有一个@apache.org域名的邮箱]

PMC Member

- **Oversees the health of the community and alignment with the Apache Way.**
  [监督社区的健康状况，确保其遵循Apache之道]

- **Votes on releases, new committers & PMC members.**
  [对版本发布、提名新的提交者&PMC成员进行投票]

- **Obliged to protect the project's trademarks.**
  [有义务保护项目商标]

10 Years of Apache Flink

How it All Began...

[起源]

- **In 2009, an academic research project called "Stratosphere" was started in Berlin.**
  [2009年在柏林发起的一项名为"Stratosphere"的学术研究项目]

- Our mission: "Develop the next generation Big Data Analytics platform".
  [我们的目标是："开发下一代大数据分析平台"]

- End of 2013, the first generation of PhD students was about to finish.
  [2013年末，第一批参与项目的博士研究生即将毕业]

- We had a state-of-the-art system that offered unique and distinguishing features.
  [我们拥有了一个极具特色的先进系统]

Starting Apache Flink

[Apache Flink项目启动]

- **In April 2014, we donate the code to the ASF Incubator and call it Apache Flink.**
  [2014年4月，我们把代码捐献给ASF孵化器，并将项目更名为Apache Flink。]

- Stratosphere developers and ASF mentors are initial committers.
  [Stratosphere开发人员和ASF导师成为了最初的提交者。]

- Community grows quickly due to collaborations with European universities.
  [在欧洲多所大学的协助下，社区发展迅速。]

- In December 2014, Flink graduates from the Incubator and becomes a top-level project.
  [2014年12月，Flink顺利从孵化器毕业并成为了顶级项目。]

Building a Community and Growing the Adoption

[建立社区并推广使用]

- **Initial project focus is on batch and machine-learning. Spark had gained a lot of mindshare in this area.**
  [项目最初关注批处理和机器学习。但Spark在这方面已经占据先机。]

- **In mid 2015, the community shifts the focus on stream processing.**
  [2015年中，社区将注意力转向流式处理。]

- Flink pioneers many important stream processing features in open source.
  [在开源界，Flink开创出诸多重要的流处理特性。]

- In late 2016, Flink adoption speeds up. Prominent users are Alibaba, Netflix, Uber.
  [2016年末，Flink的使用率开始加速提升。代表用户有阿里巴巴、网飞和优步等公司。]

Apache Flink Today

[今天的Apache Flink]

- **800+ Contributors, 51 committers, 26 PMC members**
  [800+贡献者，51为提交者，26位PMC成员]

- Most active user mailing lists of all Apache Projects in 2018.
  [2018年最活跃的Apache用户邮件列表。]

- Rapid development speed. A new version is released every 3-4 months.
  [发展迅速，每隔3-4个月发布一个新的版本。]

- The world's most demanding stream processing applications run on Flink.
  [全世界要求最为严苛的流处理应用运行在Flink之上。]

1.5.6: 12/2018
1.5.5: 10/2018
1.5.4: 09/2018   1.6.4: 02/2019
1.5.3: 08/2018   1.6.3: 12/2018
1.5.2: 07/2018   1.6.2: 10/2018   1.7.2: 02/2019   1.8.2: 09/2019
1.5.1: 07/2018   1.6.1: 09/2018   1.7.1: 12/2018   1.8.1: 07/2019
1.5.0   1.6.0   1.7.0   1.8.0   1.9.0

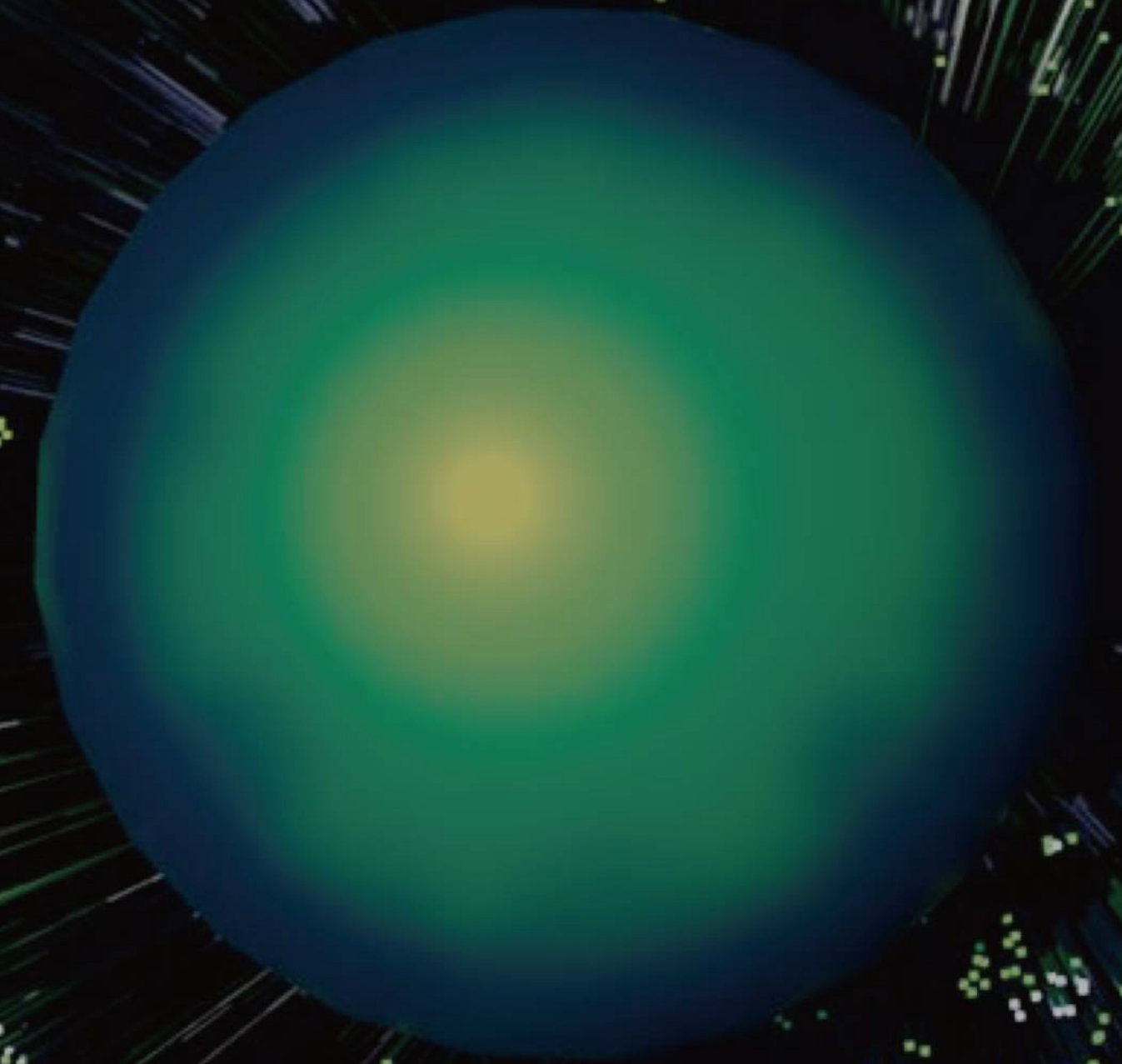05/2018   08/2018   11/2018   04/2019   08/2019
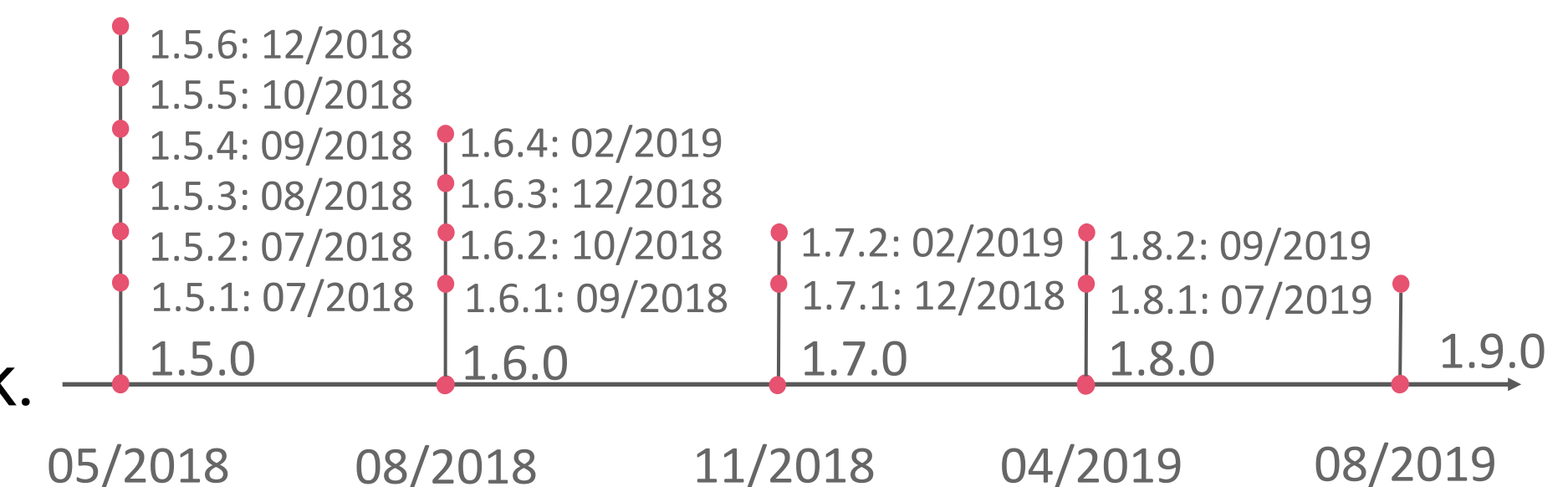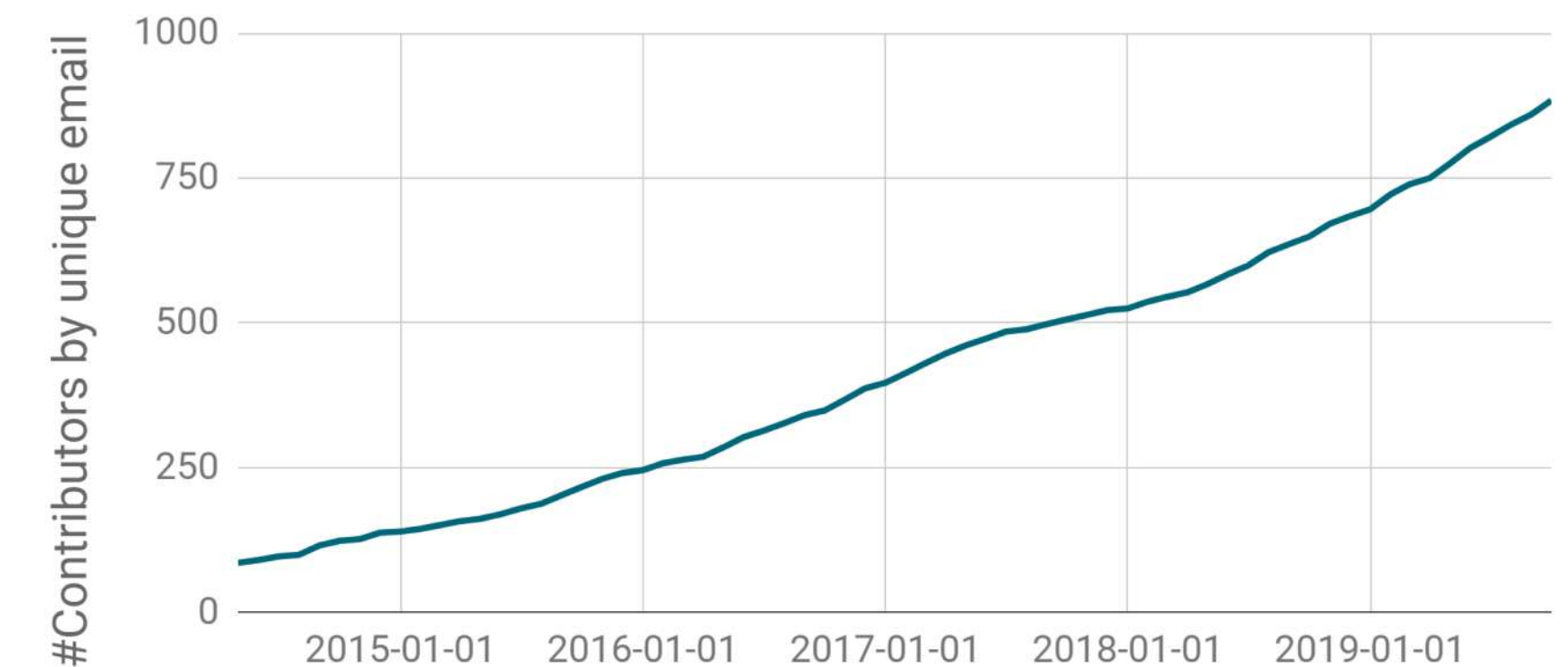
Powered By Apache Flink

[Apache Flink用户]

Contributing to Apache Flink

Contributing to Apache Flink

[贡献Apache Flink]

- **There are many ways to contribute to Flink!**
  [贡献Flink的方式有很多！]

- **Contributing to an open source project is fun, rewarding and you learn a lot.**
  [贡献开源项目很有趣也很有意义，你将从中收获很多。]

- Contributors earn merit to become a committer.
  [贡献者通过积累"贡献值"成为提交者。]

- See Flink bylaws for community rules: https://cwiki.apache.org/confluence/display/FLINK/Flink+Bylaws
  [查看Flink制度了解有关社区的规则：https://cwiki.apache.org/confluence/display/FLINK/Flink+Bylaws]

Contribute to User Support

[提供用户支持]

- Help answering user questions and support them solving their problems.
  [帮助回答和解决用户提出的问题。]

- Mailing lists are the primary support channels of ASF projects.
  user@flink.apache.org and user-zh@flink.apache.org have ~150 emails/week and 1000+ subscribers.
  [ASF项目提供帮助的主要途径是邮件列表。 user@flink.apache.org 和 user-zh@flink.apache.org每周大约有150封邮件，有1000+的订阅人数]

- Stack Overflow [apache-flink] tag has 2800 questions.
  [Stack Overflow [apache-flink]标签下大约有2800个问题。]

Contribute to Evangelism

[传播布道]

- **Help spreading the word about Flink on social media.**
  [在社交媒体上帮忙转发有关Flink的消息。]

- **Give a talk at a meetup or conference.**
  [聚会或会议上发表演讲。]

- **Write a blog post or record a podcast or video.**
  [写博客，录制播客或视频]

- **Organize a meetup.**
  [组织聚会。]

Contribute Documentation

[贡献文档]

- Documentation is never perfect and can always be improved.
  [文档没有完美一说，总是存在改进空间。]

- There are many Jira tasks in the "Documentation" component that can be picked up.
  [你可以在Jira中选择那些"Documentation"模块下的任务。]

- See contribution guide for details: https://flink.apache.org/contribute-documentation.html
  [详情请参照贡献指南： https://flink.apache.org/contribute-documentation.html]

Contribute Chinese Content

[贡献中文内容]

- **Flink has a Chinese website and documentation.**
  [Flink有一个中文网站和文档。]

- **Content is translated from English and needs to be kept up-to-date.**
  [内容都是从英文翻译过来的，需要不断保持更新。]

- **Translation tasks are collected in Jira and are in the "Chinese-translation" component.**
  [翻译任务同样会在Jira中记录，相应的模块名称是"Chinese-translation"]

- **Help translating our content to Chinese and support our Chinese users.**
  [协助我们将内容翻译成中文，以更好地服务于中文用户。]

Contribute to Development Discussions

[参与开发讨论]

- **New features, roadmap, release scheduling and voting, and community processes are publicly discussed.**
  [新的特性、发展路线、发布计划、投票和社区流程等都会公开讨论。]

- **The dev@flink.apache.org mailing list is the main communication and decision-making channel of Flink.**
  [Flink的开发交流和决策主要是在dev@flink.apache.org 邮件列表中进行]

- **Propose or help <mark>shaping</mark> new features with your feedback.**
  [通过反馈收集建议或帮助确定新的特性。]

- **Participate in development discussions and releases.**
  [参与开发讨论和版本发布。]

Contribute Code Reviews

[协助审查代码]

- **Everybody is encouraged to review pull requests, not just committers!**
  [我们鼓励所有人参与到Pull Requests的代码审查中来，而不仅限于提交者！]

- **Before reviewing a pull request, make sure that the community agreed on the feature.**
  [在审核某个Pull Request之前，请确保社区已经同意引入该功能。]

- **Code reviews are super valuable contributions and can help to become a committer.**
  [代码审查是非常重要的贡献，有助于你成为提交者。]

Contribute a Bug Fix

[协助修复Bug]

- **Bugs are tracked in Jira**: https://issues.apache.org/jira/projects/FLINK
  [所有Bug都会在Jira上追踪： https://issues.apache.org/jira/projects/FLINK]

- **Before implementing a fix, ask a committer to assign the ticket to you.**
  [在修复工作开始之前，请联系一个提交者将某个问题分配给你。]

- **If the fix is more involved, discuss your solution before you implement it and open a pull request.**
  [如果修复比较麻烦，请在实现和提交Pull Request之前讨论一下解决方案。]

Contribute a New Feature

[参与新特性开发]

- **Check the code contribution guide first!**
  [开始前请阅读代码贡献指南！]

- **Propose and discuss new features on the dev@flink.apache.org mailing list.**
  [在dev@flink.apache.org 邮件列表中提出和讨论新特性。]

- **Only start implementing after everyone agrees on the approach and you have buy-in from a committer.**
  [代码实现前请确保所有人已经同意你的方法，有提交者"买账"。]

- **Large features should be included into the release planning.**
  [较大的特性需要纳入到发布计划中。]

Requirements to Become a Flink Committer

[成为Flink提交者的要求]

- Significant and well-done contributions over a longer period of time.
  [在较长一段时间内做出重大和突出的贡献。]

- Showing technical oversight and experience during code reviews and dev discussions.
  [在代码审查和开发讨论期间展示出你的技术洞察能力和经验。]

- Good community engagement. Understanding Flink's community processes and the Apache Way.
  [良好地融入社区，理解Flink的社区运作流程和Apache之道。]

- Formally: PMC will vote on a community member to become a committer.
  [PMC成员将投票选举社区成员成为提交者。]

Summary

[总结]

- **Community over Code!**
  [社区重于代码！]

- **There are many ways to contribute to Flink.**
  [参与贡献Flink的方式有很多。]

- **Check our contribution guides to learn the workflows.**
  [查看我们的贡献指南来了解工作流程。]

- **Open source work is very rewarding and you get in touch with many nice people.**
  [开源工作将为你带来众多好处，你能接触到很多优秀的人。]

Thank you!