



GOTC 2023

全球开源技术峰会

THE GLOBAL OPENSOURCE TECHNOLOGY CONFERENCE

OPEN SOURCE, INTO THE FUTURE

「OSS Compass」专场

OSS Compass 新模型解读与新功能发布

王晔晖 2023年05月28日

华为 开源工程师、LF CHAOSS Board、OSS-Compass TC Co-Chair

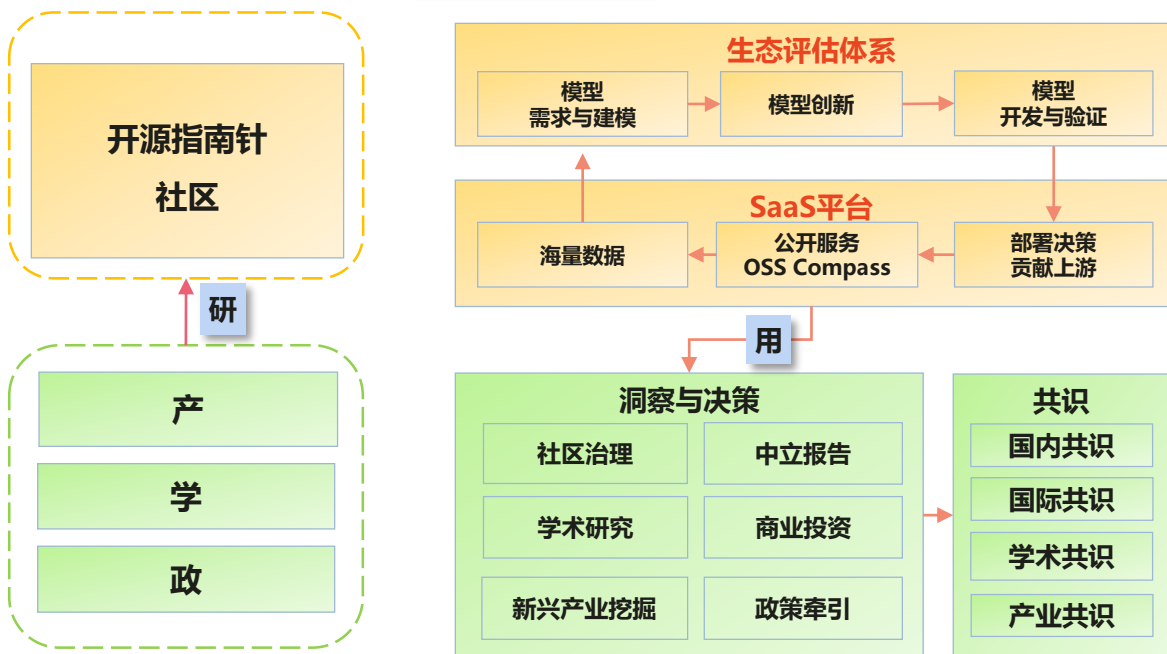
开源指南针社区-OSS Compass



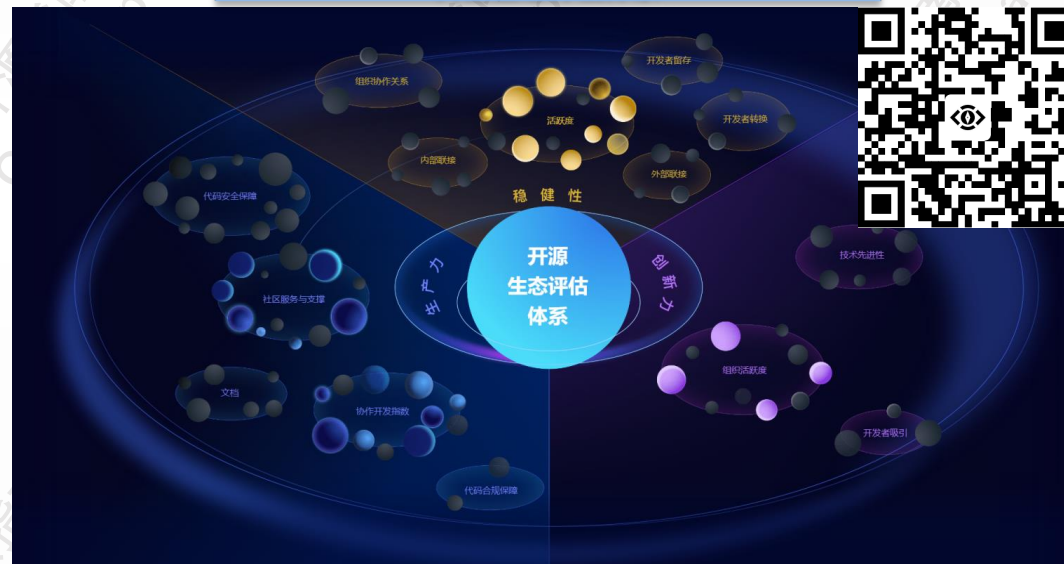
愿景与使命

- 通过构建可持续演进的**开源生态评估体系**和**通用平台**。
- 为围绕开源生态可持续发展制定的**各种决策**，提供深入、持续和可靠的**数据洞察**，形成**共识**。

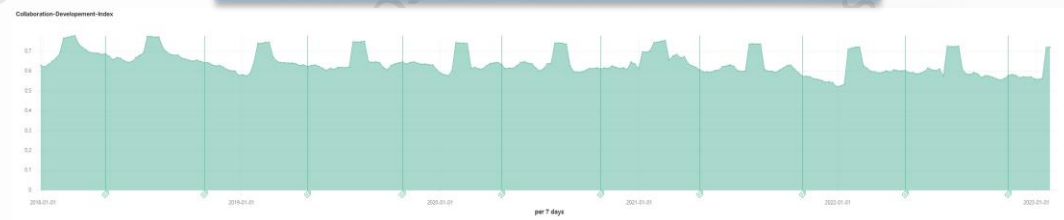
整体方案



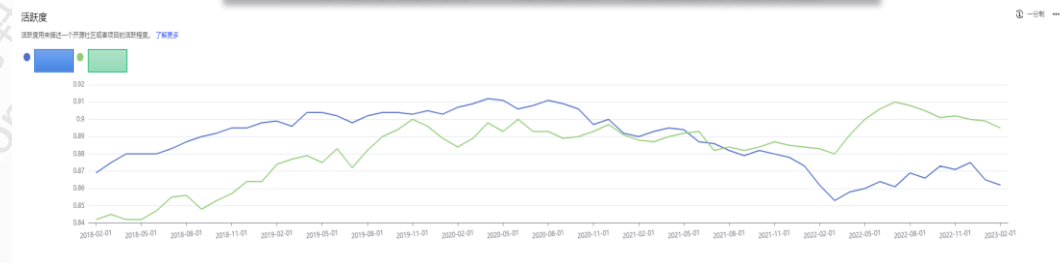
开源生态评估体系



开源生态的协作之美 - 生产力：协作开发指数模型



开源生态的竞争 - 稳健性：社区活跃度模型



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开源指南针社区-OSS Compass

GOTC

初创成员



伙伴成员



最近90天

- 活跃用户: **5000+**
- 全球覆盖国家和地区: **60+**
- 项目总数: **2万+**
- 报告申请PR: **500+**
- 分类: **203个**

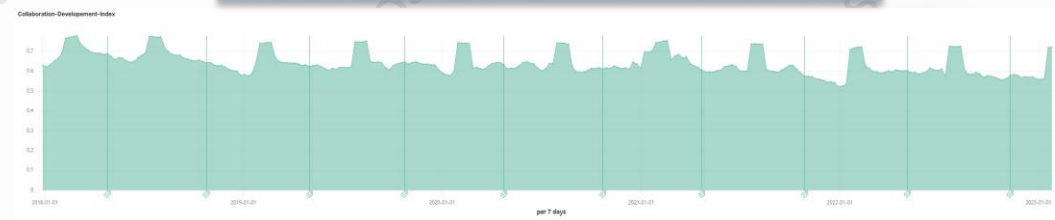


	USERS
China	3.6K
Hong Kong	488
United States	450
Japan	166
Singapore	152
Taiwan	84
Philippines	80

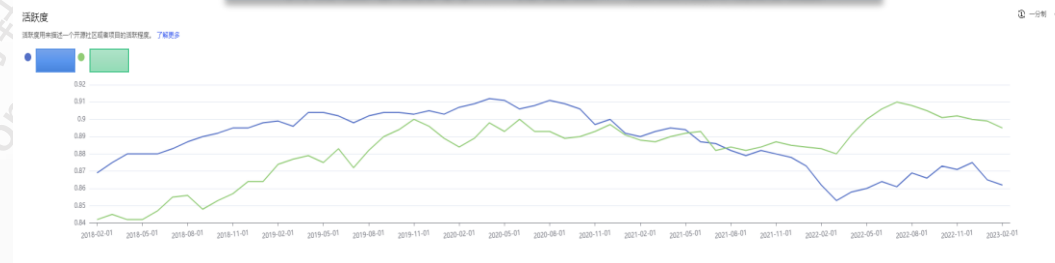
开源生态评估体系



开源生态的协作之美 - 生产力: 协作开发指数模型



开源生态的竞争 - 稳健性: 社区活跃度模型



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如何实现 社区与开发者 价值双赢？

谁参与了社区贡献？

做了哪些类型的贡献？

参与的频度如何，是否有变化？

在哪些平台做出了贡献？

参与社区贡献的动机是什么？如何激励更多的开发者参与贡献？

各类“事件”对开发者参与贡献的影响是什么？

开发者对社区的口碑如何？

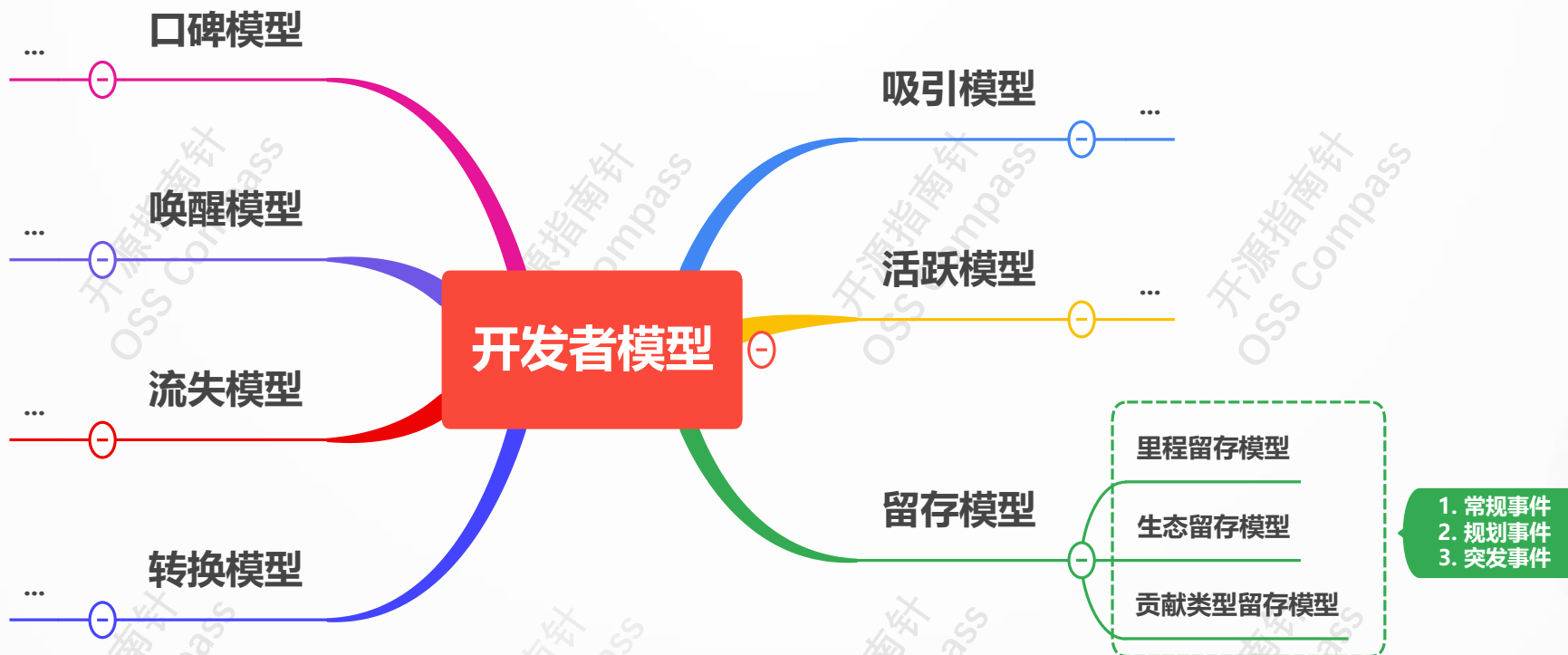
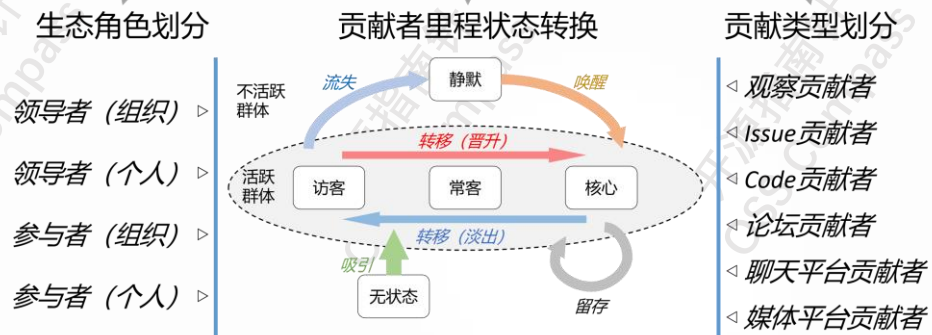
开发者模型

开发者画像的构建



开发者模型

开发者模型的构建



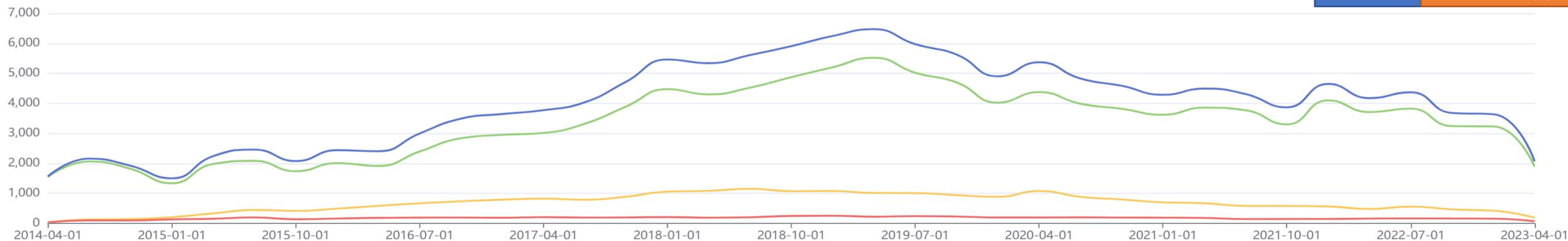
开发者吸引模型

开发者里程吸引模型 & 开发者贡献类型吸引模型

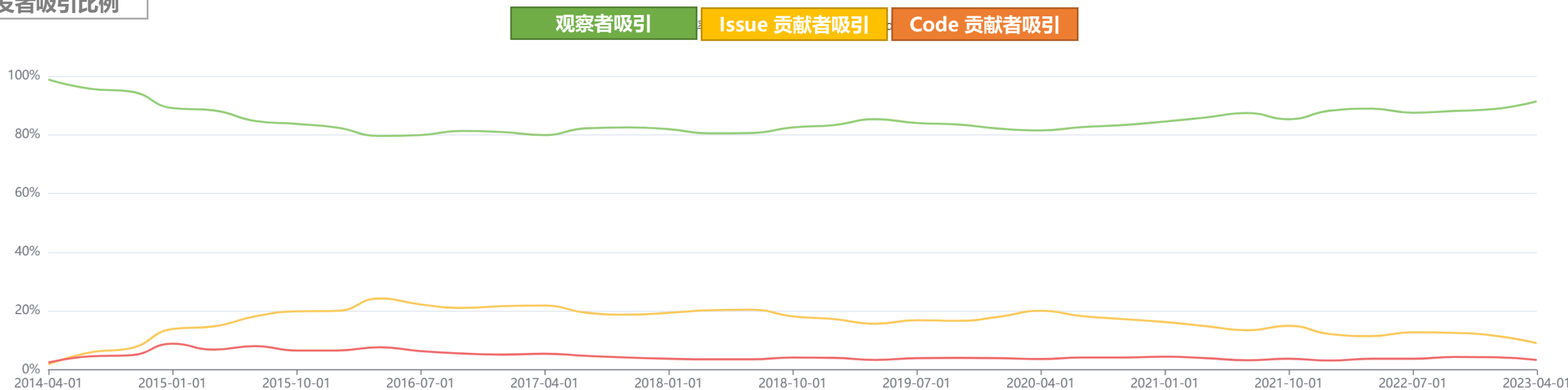
开发者吸引人数

总共 观察贡献者 issue贡献者 code贡献者 summary

吸引： 无状态者 → 访客	观察者吸引
	Issue 贡献者吸引
	Code 贡献者吸引



开发者吸引比例



开发者活跃模型

开发者里程活跃模型 & 开发者贡献类型活跃模型

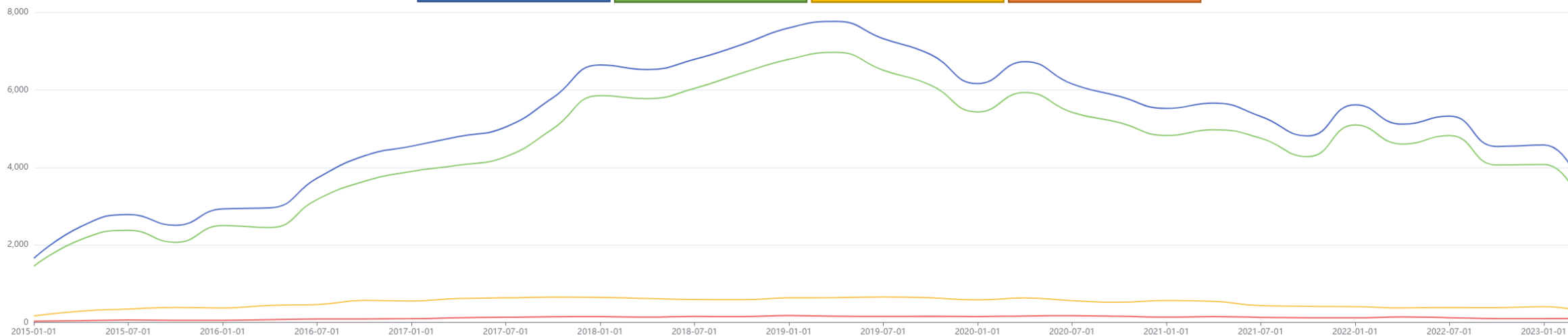
开发者里程吸引人人数

活跃开发者总数

活跃访客

活跃常客

活跃核心



开发者贡献类型吸引人人数

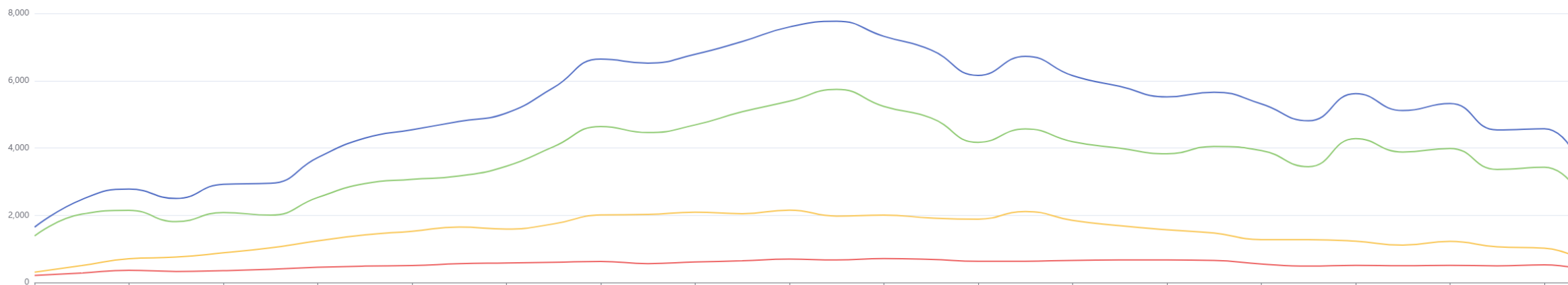
总共 观察贡献者 issue贡献者 code贡献者 summary

活跃开发者总数

活跃观察者

活跃 Issue 贡献者

活跃 Code 贡献者

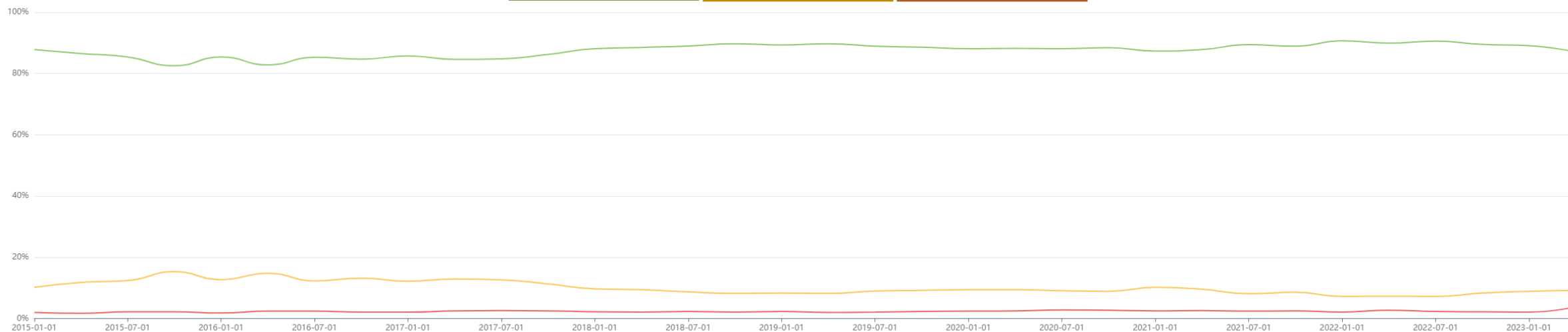


开发者活跃模型

开发者里程活跃模型 & 开发者贡献类型活跃模型

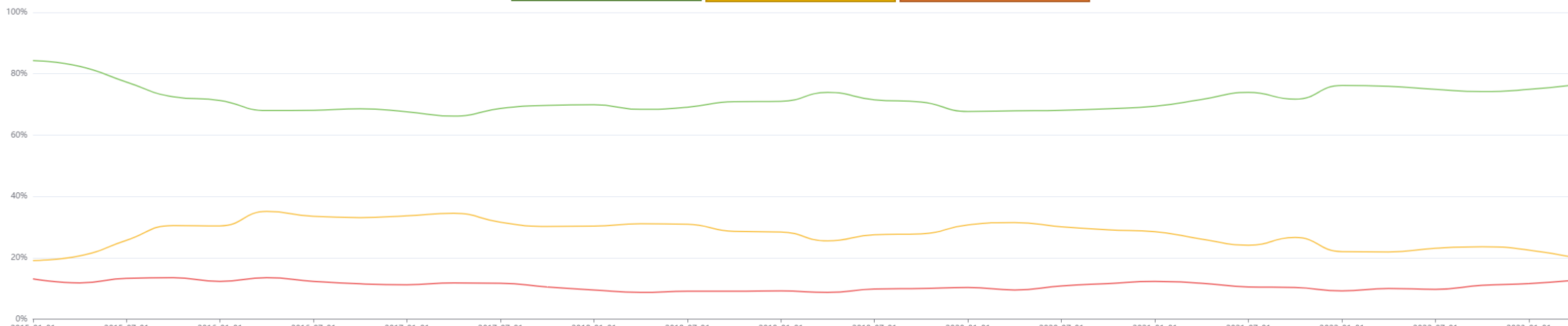
开发者里程活跃比例

活跃访客 活跃常客 活跃核心



开发者贡献类型活跃比例

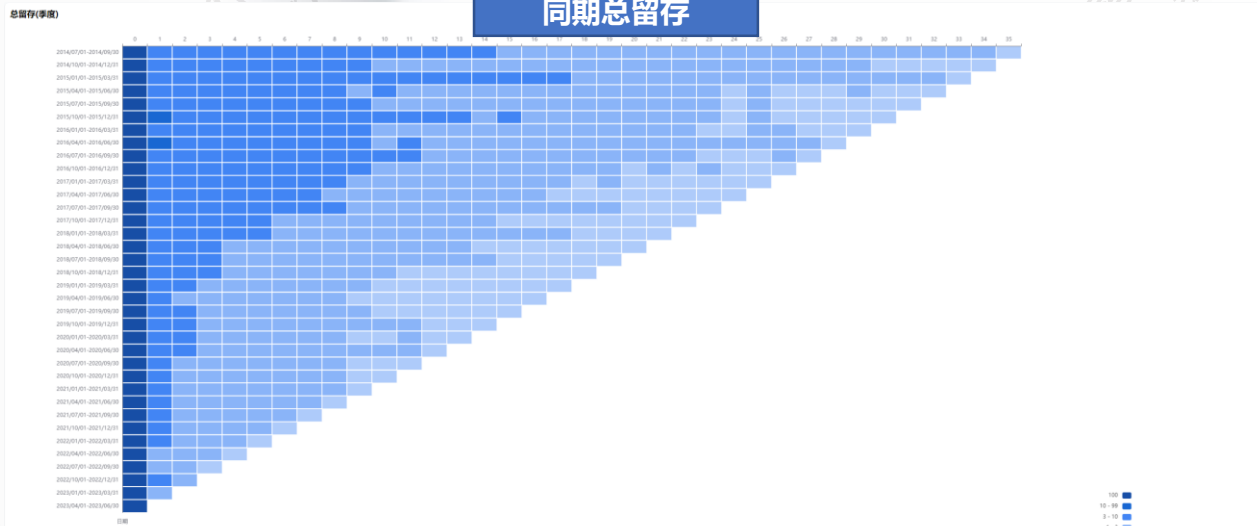
活跃观察者 活跃 Issue 贡献者 活跃 Code 贡献者



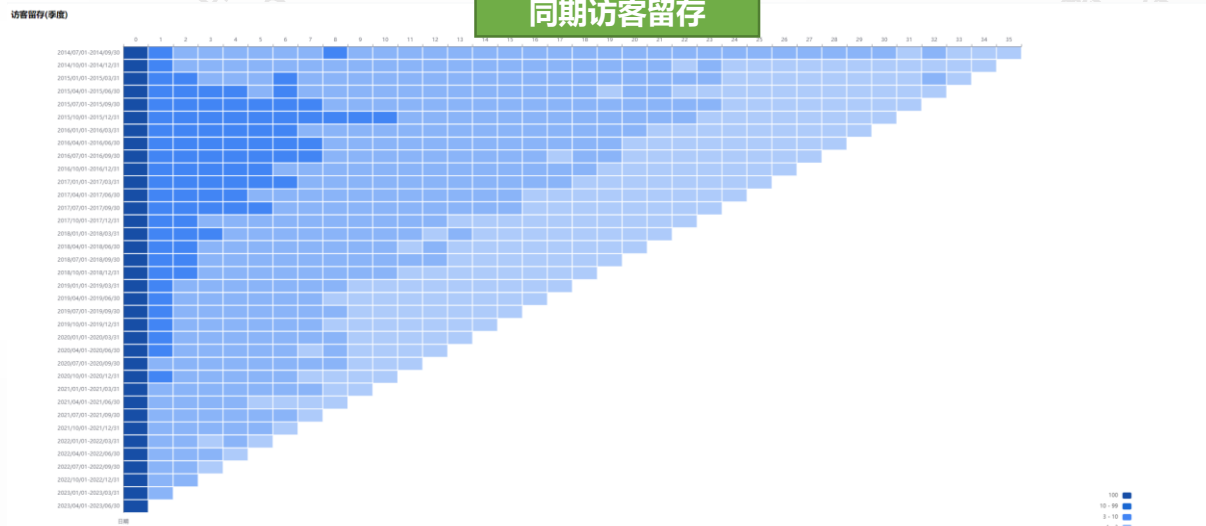
开发者留存模型

开发者里程留存模型 - 同期开发者留存

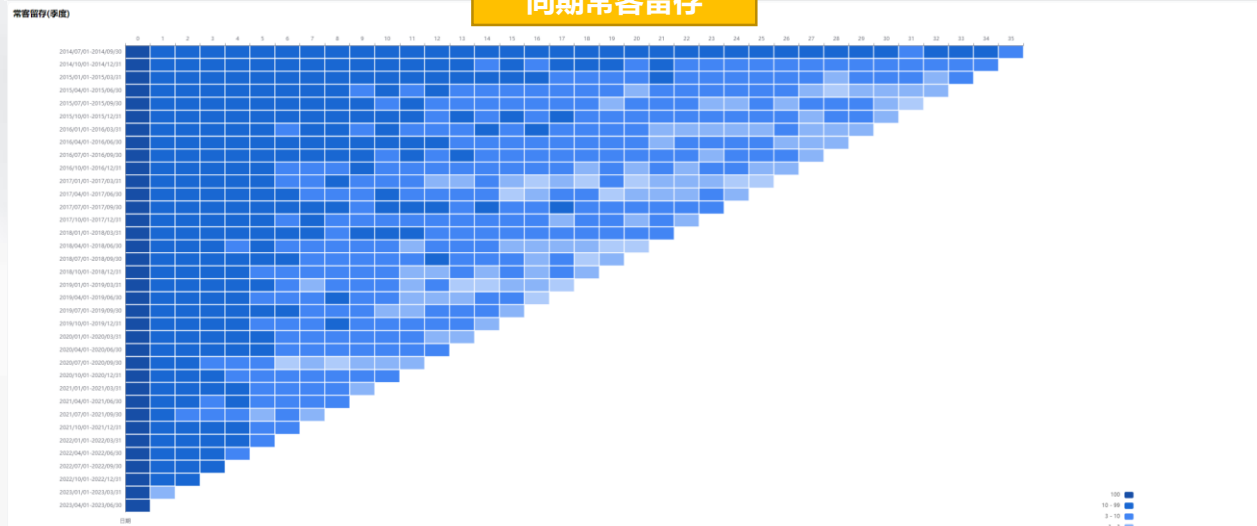
同期总留存



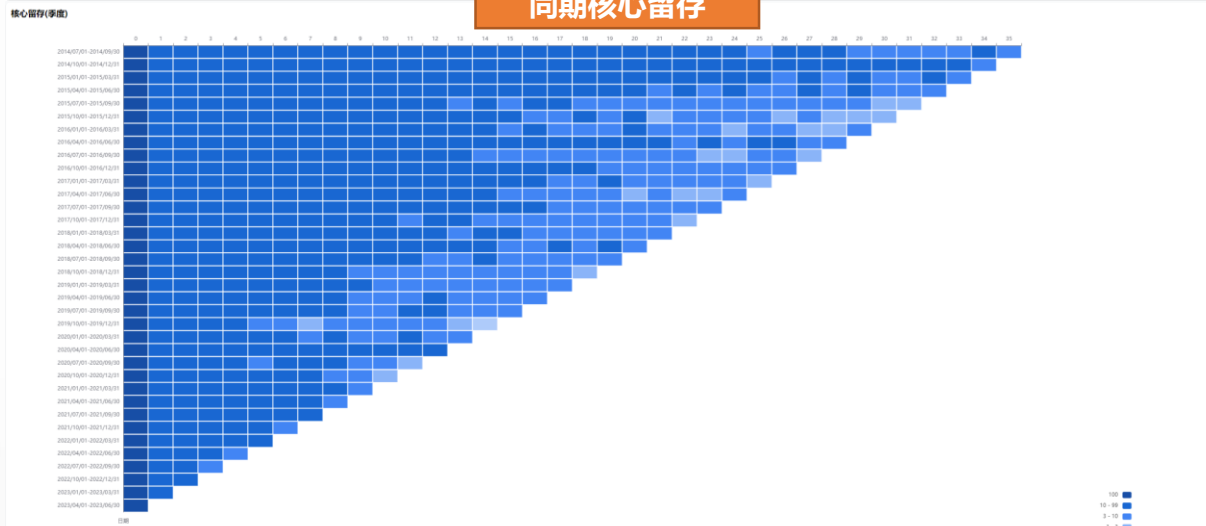
同期访客留存



同期常客留存



同期核心留存



开发者留存模型

开发者里程留存模型 vs 开发者贡献类型留存模型 – 环比开发者留存



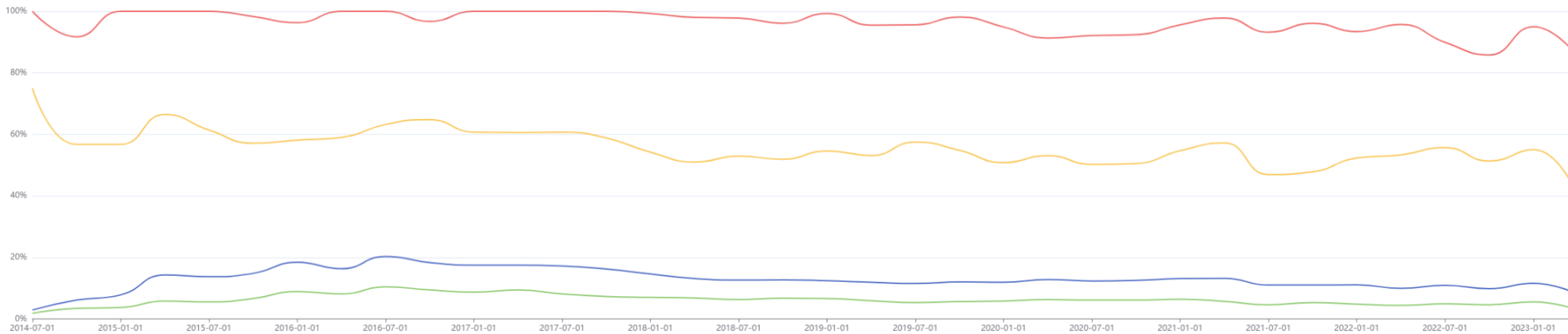
开发者里程环比

环比总留存率

访客环比

常客环比

核心环比



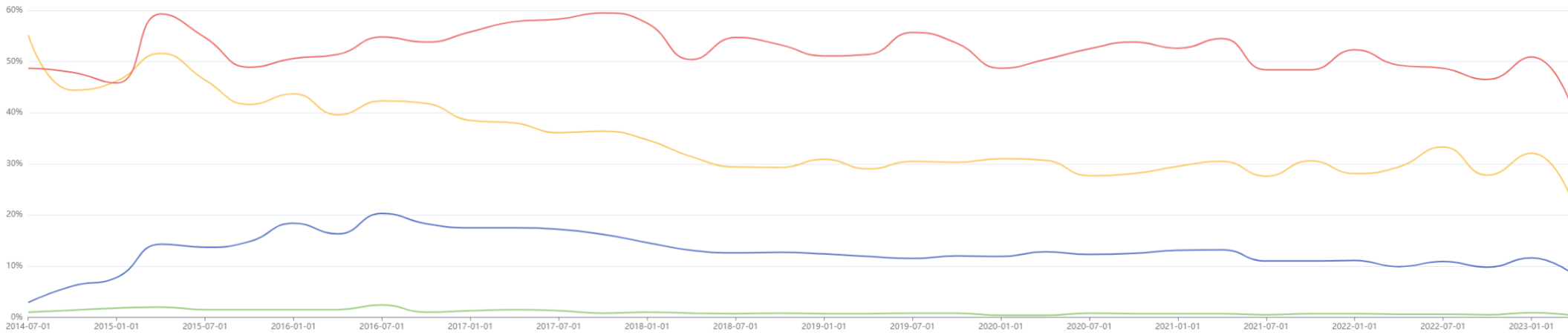
开发者贡献类型环比

环比总留存率

观察者环比留存率

Issue 贡献者环比

Code 贡献者环比

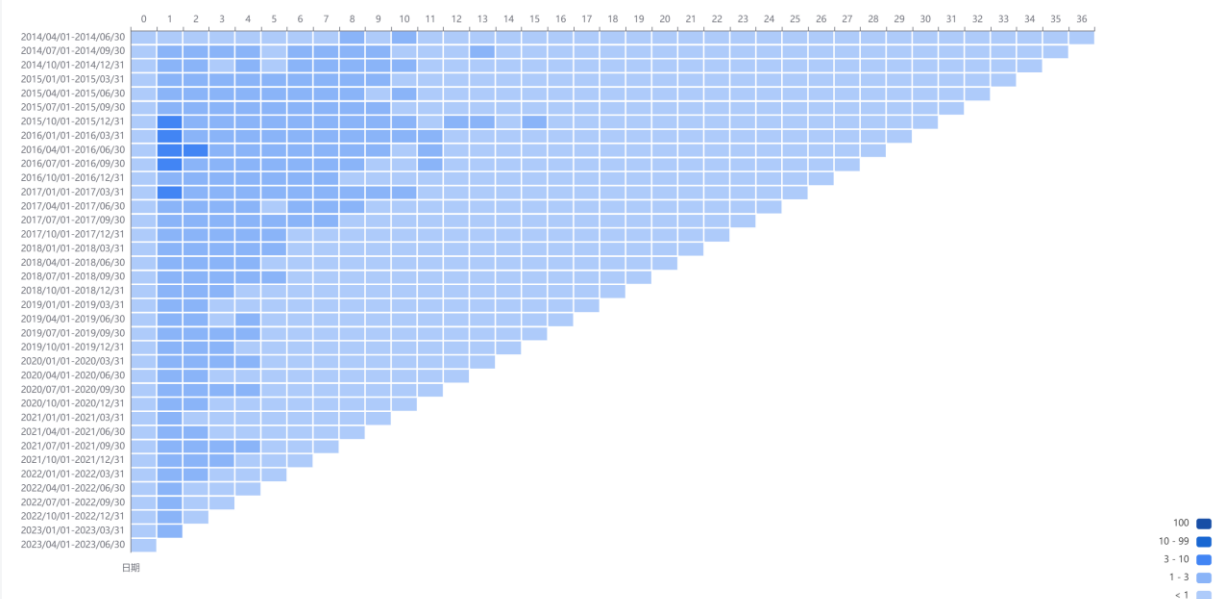


开发者转换模型

开发者里程晋升模型 - 同期开发者晋升

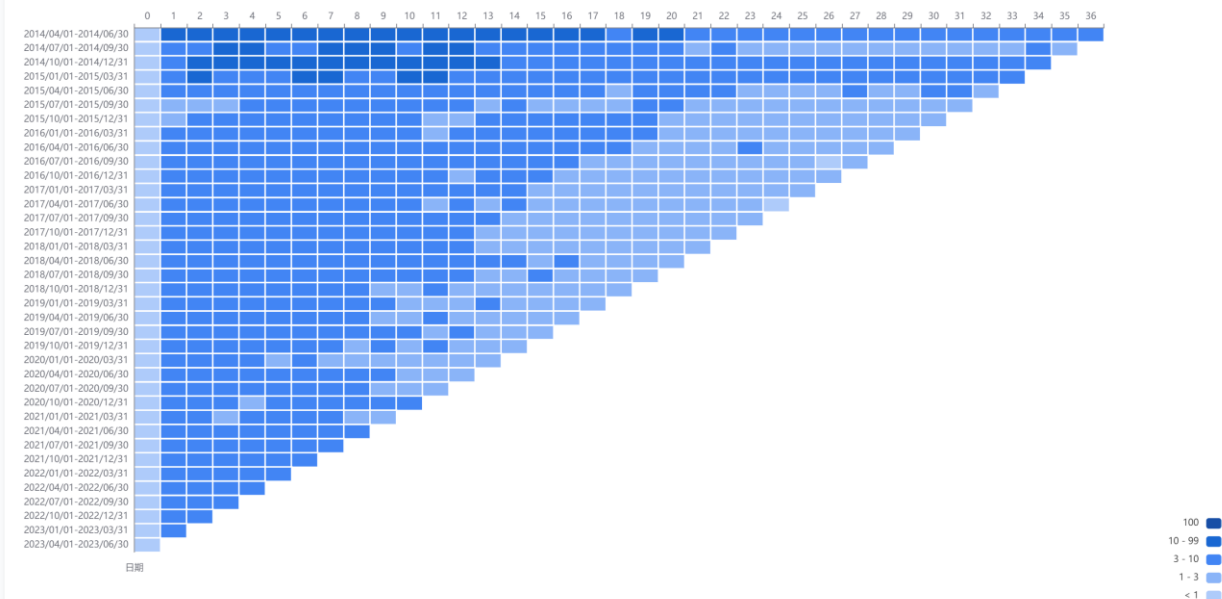
访客->常客

访客晋升常客(季度)



常客->核心

常客晋升核心(季度)

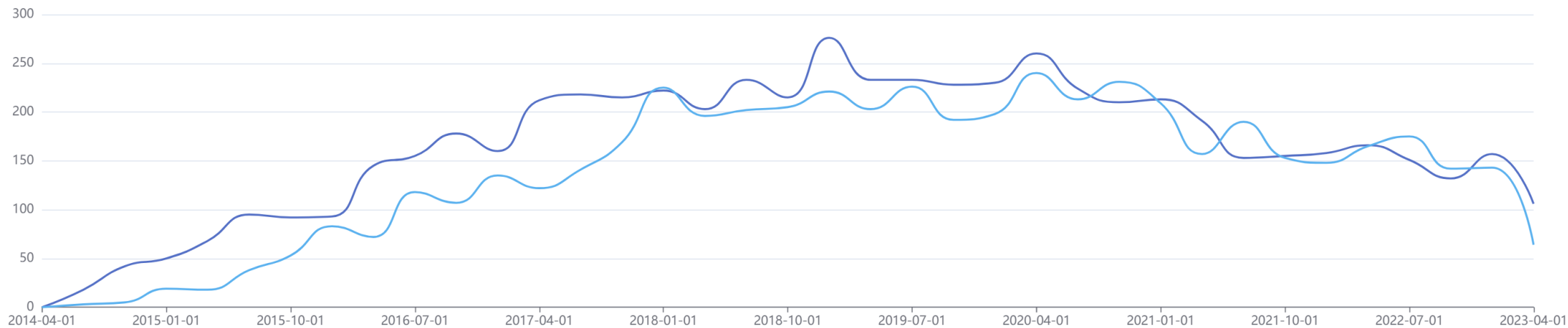


开发者转换模型

开发者里程晋升模型 vs 开发者里程降级模型

总晋升人数

总降级人数

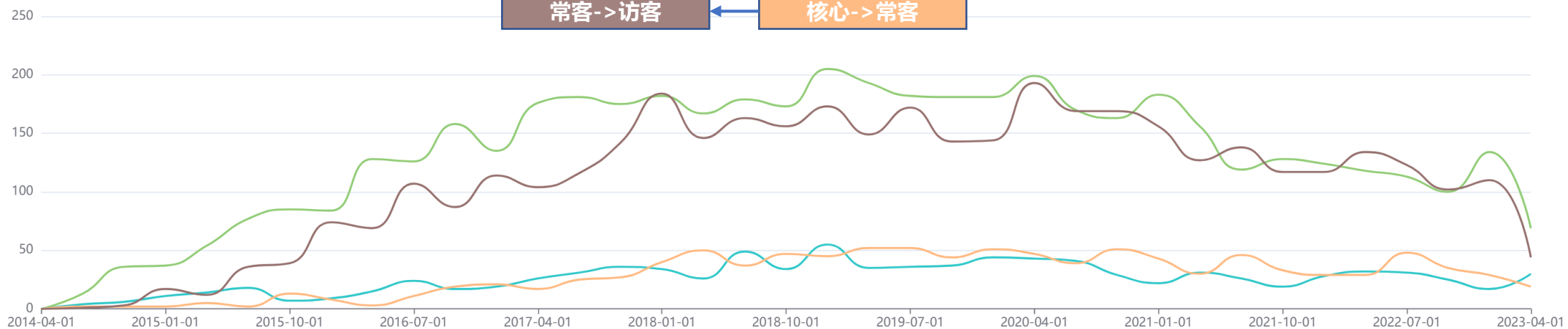


访客->常客

常客->核心

常客->访客

核心->常客



新功能介绍

账户与订阅

GOTC

登录



扫码在线体验

国际: <https://oss-compass.org>
国内: <https://compass.gitee.com>



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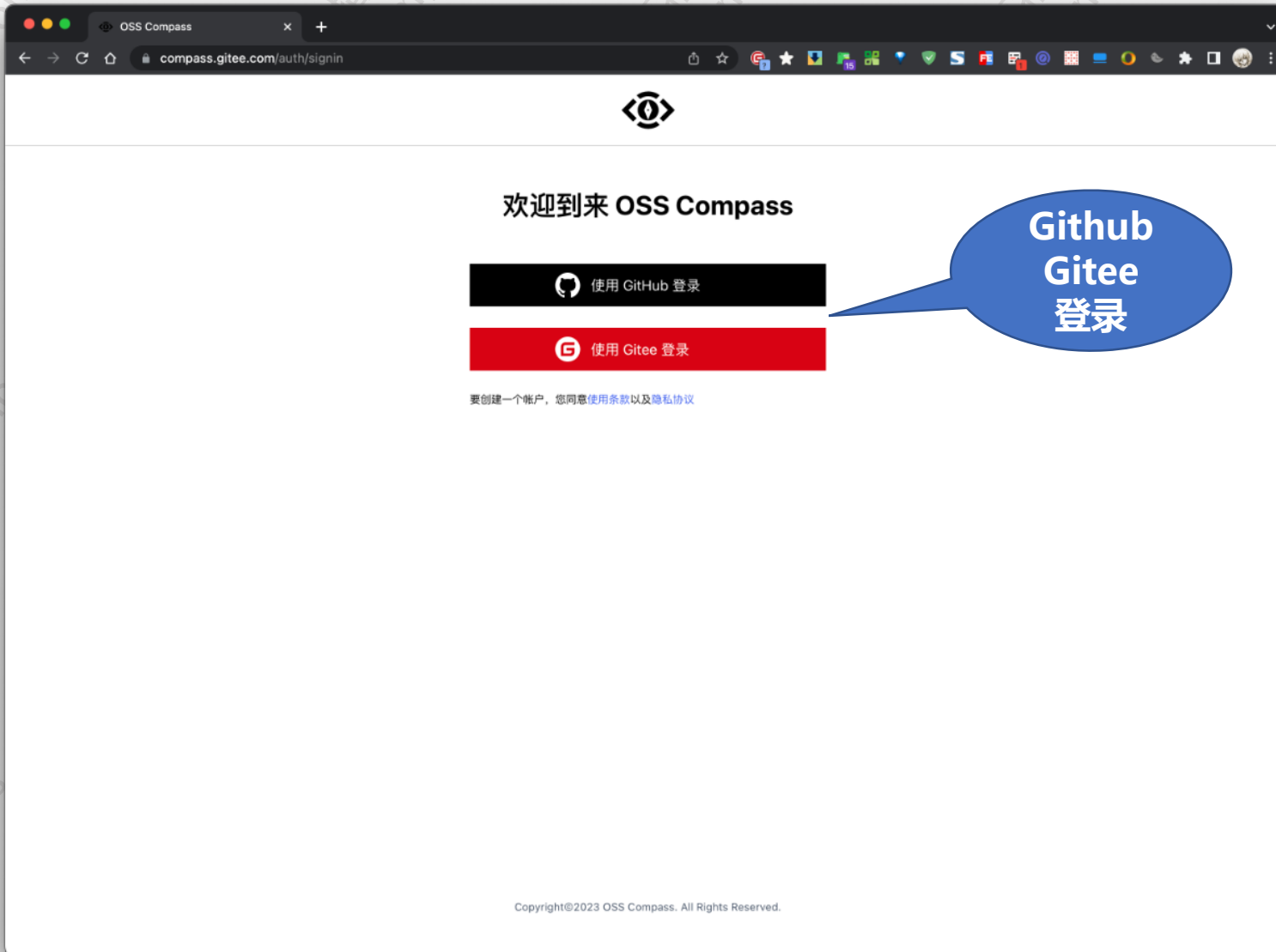
账户与订阅



扫码在线体验

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账号设置

绑定邮箱、Slack、微信
订阅更新消息

新功能介绍

账户与订阅



扫码在线体验

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The image shows two screenshots of the OSS COMPASS web interface. The top screenshot displays the 'openharmony/build' project page. The navigation bar includes 'OSS COMPASS', '探索', '评估模型', '社区', 'Lab', and '关于'. A '提交项目' button is visible. The project page shows a 'build' header and a '概况' (Overview) section with a line chart. A '已订阅 1' (Subscribed 1) button is circled in orange. The bottom screenshot shows the 'pulumi community' page. It features a 'pulumi' header and a '概况' section with a '仓库 (179)' (Repositories) grid. A '已订阅 1' button is also circled in orange. Arrows from the circled buttons point to a callout box on the right.

已订阅 1

订阅项目或者社区

新功能介绍

账户与订阅



扫码在线体验

国际: <https://oss-compass.org>

国内: <https://compass.gitee.com>

OSS COMPASS 探索 评估模型 社区 Lab 关于 中文 提交项目

我的订阅

pulumi community	分析中	取消订阅
build openharmory	更新于 2023-05-18	取消订阅
ash community	分析中	取消订阅
chromium chromium	分析中	取消订阅

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新功能介绍

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Compass Lab 与 Compass Hub

- Compass Lab: 通过开放数据集、指标模块与模型算法，提供模型创新；
- Compass Hub: 面向社区、OSPOs、基金会和研究机构的一个开放的、可定制化的社区治理平台；

CHA OSS &

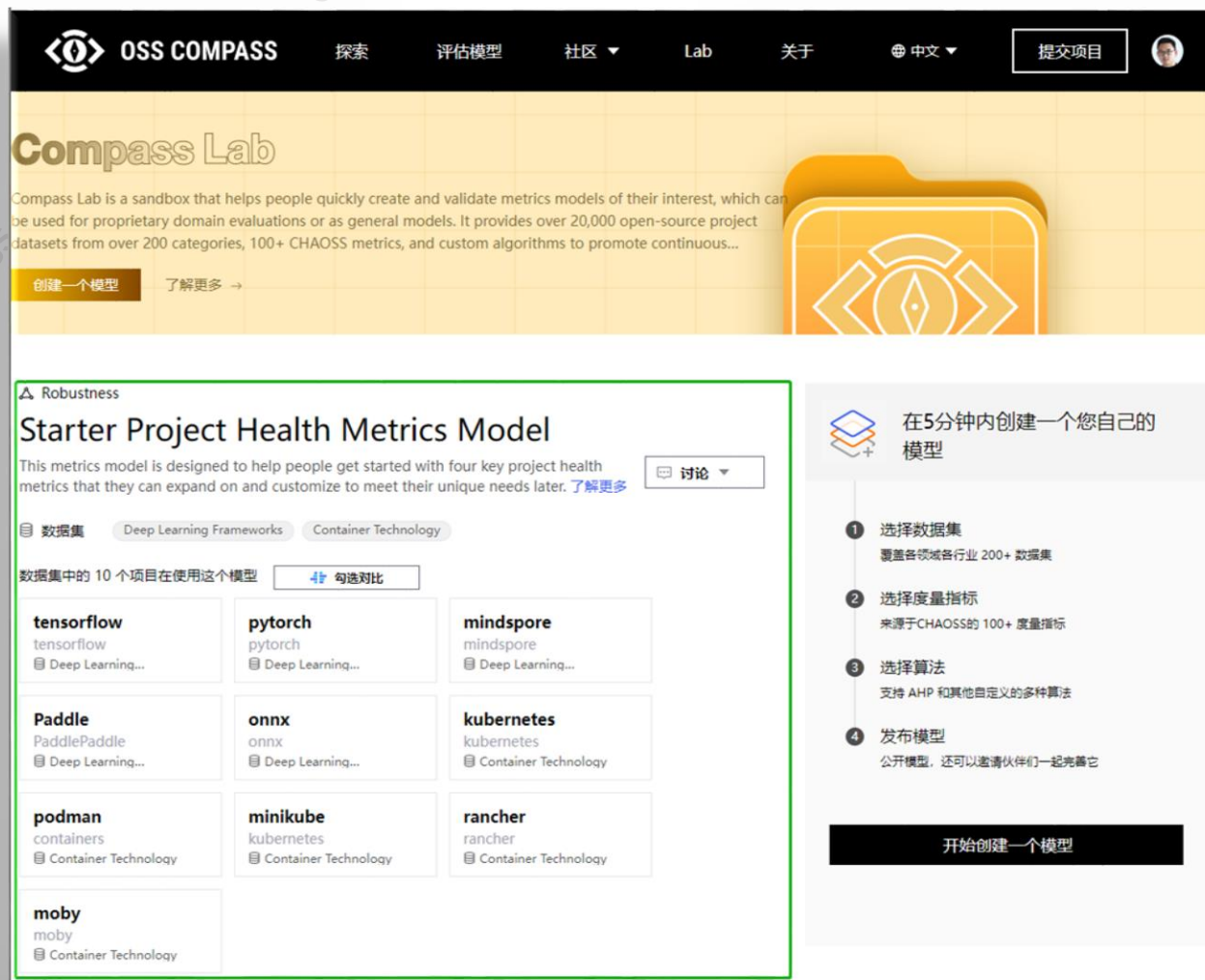


COMPASS



扫码在线体验

国际: <https://oss-compass.org>
国内: <https://compass.gitee.com>



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新功能介绍



Compass Lab 与 Compass Hub



扫码在线体验

国际: <https://oss-compass.org>
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Compass Lab

Compass Lab is a sandbox that helps people quickly create and validate metrics models of their interest, which can be used for proprietary domain evaluations or as general models. It provides over 20,000 open-source project datasets from over 200 categories, 100+ CHAOSS metrics, and custom algorithms to promote continuous...

[创建一个模型](#) [了解更多](#) →

Starter Project Health Metrics Model

This metrics model is designed to help people get started with four key project health metrics that they can expand on and customize to meet their unique needs later. [了解更多](#)

数据集中的 10 个项目在使用这个模型 [勾选对比](#)

tensorflow tensorflow Deep Learning...	pytorch pytorch Deep Learning...	mindspore mindspore Deep Learning...	Paddle PaddlePaddle Deep Learning...
onnx onnx Deep Learning...	kubernetes kubernetes Container Technology	podman containers Container Technology	minikube kubernetes Container Technology
rancher rancher Container Technology	moby moby Container Technology		

在5分钟内创建一个您自己的模型

- 1 选择数据集
覆盖各领域各行业 200+ 数据集
- 2 选择度量指标
来源于CHAOSS的 100+ 度量指标
- 3 选择算法
支持 AHP 和其他自定义的多种算法
- 4 发布模型
公开模型, 还可以邀请伙伴们一起完善它

[开始创建一个模型](#)

新功能介绍

Compass Lab 与 Compass Hub



扫码在线体验

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GOTC



在5分钟内创建一个您自己的模型

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新功能介绍

Compass Lab 与 Compass Hub



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The screenshot shows the OSS COMPASS Lab interface. At the top, there is a navigation bar with the logo, 'OSS COMPASS', and links for 'Explore', 'Metrics Models', 'Community', 'Lab', and 'About'. A 'Submit your project' button is also present. Below the navigation bar is a yellow banner with the text 'Create a model in Lab' and a folder icon. The main content area is divided into three steps:

- 选择数据集 (Select Dataset):** This step shows three categories of datasets: 'Deep Learning Frameworks' (12 projects selected), 'Container Technology' (8 projects selected), and 'Browser Engine' (2 projects selected). Each category has a trash icon and a plus icon.
- 选择度量指标 (Select Metrics):** This step shows one selected metric: 'Code Contributor Count' (Pull Request). There is a trash icon and a plus icon next to it.
- 选择算法 (Select Algorithm):** This step offers two options: '系统推荐算法' (System Recommended Algorithm) and '自定义算法' (Custom Algorithm). The '自定义算法' option is selected. Below this, there is a table for setting weights for various metrics, with a total weight of 100.

Metric	Weight	Metric	Weight
Code Contributor Count	25	Commit Frequency	请输入权重值
Is Maintained	请输入权重值	Commit PR Linked Ratio	请输入权重值
PR Issue Linked Ratio	请输入权重值	Code Review Ratio	请输入权重值
Code Merge Ratio	请输入权重值	Lines of Code Frequency	请输入权重值

提示: 对度量指标的权重计算有更多想法, 欢迎进入官方 Slack 社区与我们讨论。

Submit

新功能介绍

Compass Lab 与 Compass Hub



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第一步：选择数据集

第二步：选择指标集

The screenshots show the 'Create a model in Lab' workflow. The first step, 'Add dataset', allows users to select up to 5 datasets from a list including Deep Learning Frameworks, Container Technology, API Management, Backend-as-a-Service, Chaos Engineering, ChatGPT, Cloud Native Storage, Compression & Decompression, Continuous Integration Tools, Dependency Management, and Expression Engine. The second step, 'Add metrics', allows users to select up to 10 metrics from a list including Pull Request, Code Contributor Count, Commit Frequency, Is Maintained, Commit PR Linked Ratio, Code Review Ratio, PR Issue Linked Ratio, Code Merge Ratio, Lines of Code Frequency, Commit Frequency, and Commit PR Linked Ratio. Other metrics like Issue, Repo, and Git are also visible.

新功能介绍

Compass Lab 与 Compass Hub



扫码在线体验

国际: <https://oss-compass.org>
国内: <https://compass.gitee.com>

第三步：选择算法

Create a model in Lab

Please name your model

Select Dataset

- Deep Learning Frameworks (17 projects selected)
- Container Technology (8 projects selected)
- Browser Engine (7 projects selected)

Select Metrics

- Code Contributor Count (Pull Request)

Select Algorithm

Recommendation Algorithms
Set weights for metrics using OSS Compass system defaults

Custom Algorithms
Manually set weights for metrics, all weight values should add up to 100

Code Contributor Count	25	Commit Frequency		Weight
Is Maintained		Weight	Commit PR Linked Ratio	Weight
PR Issue Linked Ratio		Weight	Code Review Ratio	Weight
Code Merge Ratio		Weight	Lines of Code Frequency	Weight

Tip: If you have more ideas about the weight calculation of metrics, welcome to enter the official Slack community to discuss with us.

Submit

第四步：发起协作

Submit your project

My Lab / Internet of Vehicles Industry Model / Invite

Please enter the email address to invite

can view | send invite link

- Dora (can edit | remove)
- Noel (can edit | remove)
- Jack (can view | remove)
- Lily (can view | remove)
- Low (can view | remove)

OSS COMPASS

WebKit/webkit

Based on: Starter Project Health, an experimental CHAOSS model in Lab. [More info about this model](#)

Paddle

Starter Project Health

Starter Project Health is designed to help people get started with how to project health metrics that they can depend on and customize to meet their unique needs later.

PR Time to First Response

PR Time To Close

PR - Issue Linked Ratio

Metric Model Discussion

- Tom: When a Pull Request is merged in through a regular release. Does it affect the evaluation of this metric?
- Jack: Sure
- Jay: In any case, this metric is supposed to take into account the pace of merging different communities.
- Erik: LGTM!
- Tom: I agree
- Judy: When a Pull Request is merged in through a regular release. Does it affect the evaluation of this metric?
- Tom: yes, it's right
- Jay: When a Pull Request is merged in through a regular release. Does it affect the evaluation of this metric?

新功能介绍

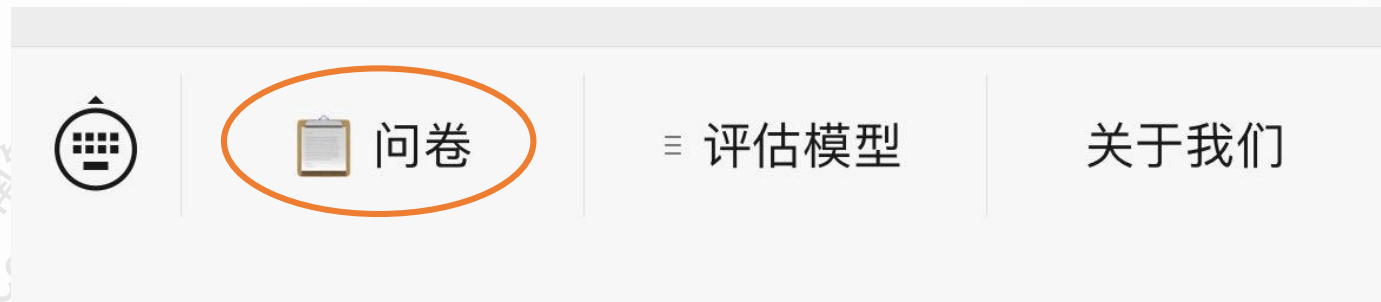


Compass Lab 与 Compass Hub



开源指南针

微信扫描二维码，关注公众号



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新功能介绍



项目二级分类

感谢 Checode 奇科厚德 与 OSS-Compass 的通力协作



扫码在线体验

国际: <https://oss-compass.org>
国内: <https://compass.gitee.com>

The screenshot shows the OSS COMPASS website interface. The top navigation bar includes the OSS COMPASS logo, search, evaluate models, community, lab, and about, along with a language selector (中文) and a '提交项目' (Submit Project) button. The main content area is titled '深度学习框架' (Deep Learning Frameworks) and displays a grid of eight frameworks:

Framework	Logo	Green Checkmark
tensorflow	tensorflow	Yes
pytorch	pytorch	Yes
mindspore	mindspore	No
Paddle	PaddlePaddle	Yes
CNTK	microsoft	Yes
keras	keras-team	Yes
mxnet	apache	No
onnx	onnx	Yes

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THANKS

GOTC

SaaS 工作组



黄超群
Gitee 前端开发



赖兴友
开源前端开发



李升保
开源软件工程师



罗雅新
Gitee MaNong



欧阳康
OSC SRE



覃华添
Programmer



魏宏斌
Programmer



王晔晖
华为 2012 实验室 开源管理中心



张盛翔
Gitee 开源社区产品负责人



钟峰
Designer

评估模型工作组



齐国强
华为 2012 实验室



单晨琪
开源工程师、LF CHAOSS Maintainer



汪亮
南京大学计算机科学与技术系副教授



王晔晖
华为 2012 实验室 开源管理中心



钟君
CHAOSS Metrics Model Working Group Maintainer



张盛翔
开源社区产品负责人



群聊: OSS-Compass 官方交流群



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