



**RISC-V<sup>®</sup>**

**RISE at One Year – Great Progress  
and So Much More Ahead**

**Larry Wikelius – RISE Governing Board  
Member & Treasurer**

# RISE (RISC-V Software Ecosystem) Mission



**Accelerate Development**



**Drive Performance**



**Amplify the Opportunity**

# Premier Members



# General Members



# Governing Board



**Amber Huffman**  
Chair



**Barna Ibrahim**  
Vice Chair



**Larry Wikelius**  
Treasurer

## Technical Steering



**Nathan Egge**



**Andrew de los Reyes**



**Kumar Sankaran**

## Program Management



**Michelle Martineau**



**Jeffrey Osier-Mixon**



**Melissa Daniels**

## Marketing/Outreach

# RISE Priority Focus Areas

RISE members coordinate and collaborate across a core set of software targets to ensure optimized upstream support for RISC-V

<b><i>RISE Working Groups</i></b>	<b><i>Example Projects and Contributions</i></b>
<b>Compilers &amp; Toolchains</b>	Autovec, shadow stacks, benchmarking, large code model
<b>System Libraries</b>	Boringssl, libflac, libdav1d
<b>Kernel &amp; Virtualization</b>	ISA extensions, KVM, CoVE support
<b>Language Runtimes</b>	Python, Java, Go, V8 and Node.js improvements, esp CI & ISA support
<b>Debug &amp; Profiling Tools</b>	Valgrind support
<b>Simulator/Emulators</b>	IOPMP in QEMU
<b>System Firmware</b>	UEFI, ACPI, TianoCore, EDK2
<b>Distro Integration</b>	Distro enablement/optimization – Debian, Fedora
<b>Dev &amp; Infrastructure</b>	Linux Kernel CI, GCC CI, OpenJDK CI, GCC Fuzz CI

# RISE Direct Funding to the Ecosystem

Working directly with upstream open-source projects, individuals and companies

Working Group Sponsor	Funded Projects
System Libraries	Multimedia Enablement, libjpeg-Turbo
Compilers & Toolchain	Rust Tier-1 Support for RV64 Linux
Developer Infra w/ Toolchain Group	LLVM CI Improvements
Simulators/ Emulators	TCG Translation for RVV Instructions
Language Runtimes	Accelerate Go Runtimes
Debug & Profiling	OpenOCD Upstreaming

**@ 700K Euro Committed to Industry for Development To Date**

# Infrastructure for the Developer Community

The Developer Infrastructure WG focuses on software and services to support open-source RISC-V developers - both RISE members and the broader open-source community

### Currently Available and Deployed:

- Build and simulator test farm
- VMs for direct developer/project utilization
- Implemented on Google Cloud Platform

Details available at [Developer Infrastructure Home](#)

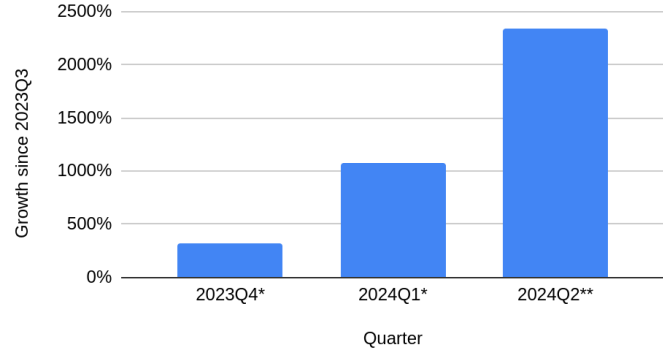
### Active projects

- Linux Kernel CI
- GCC CI
- GCC Fuzz CI
- LLVM Fuzz CI
- OpenJDK CI



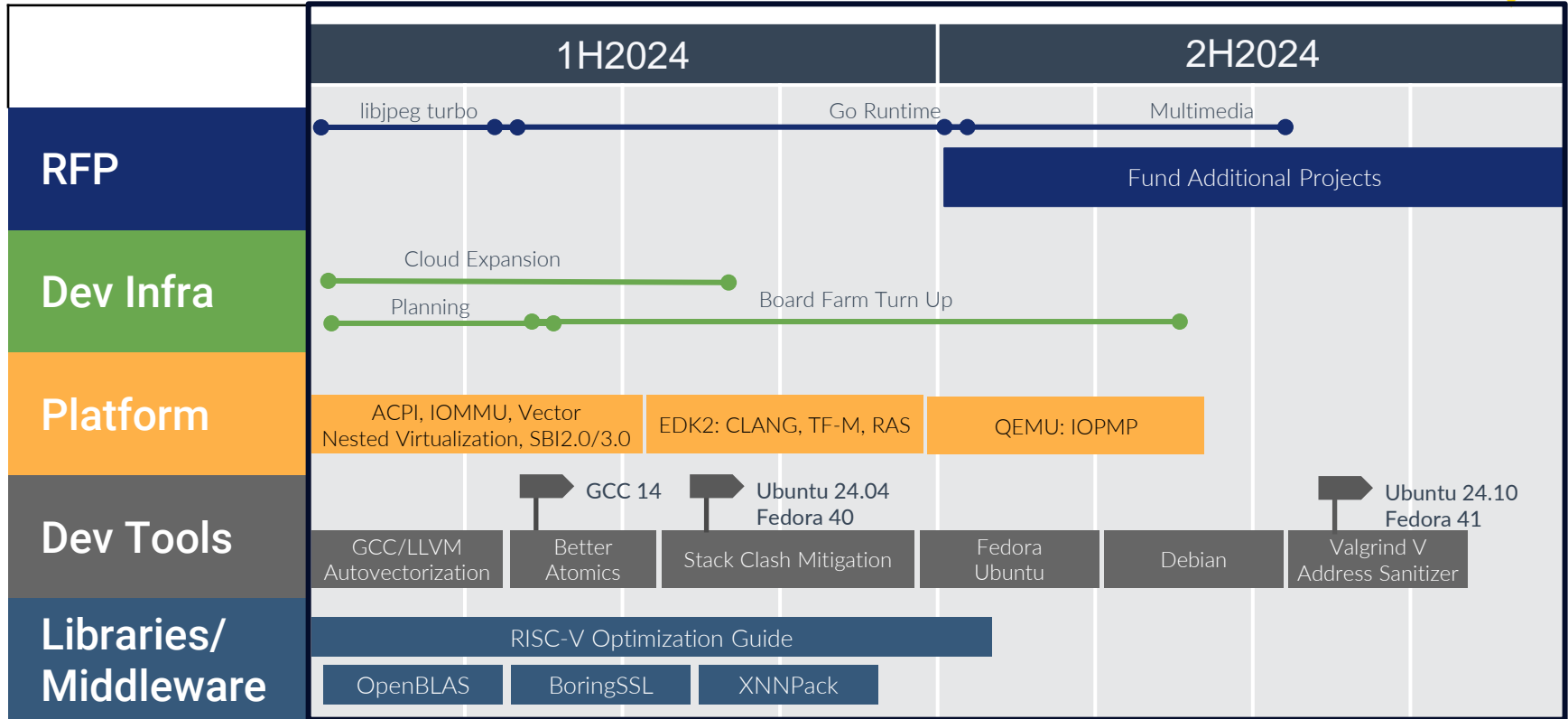
Google Cloud Platform

Build Farm Usage Growth by Quarter



***Thousands of Builds & Millions of Tests per month***

# RISE Roadmap 2024





# RISE Outreach Across the Community




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Brussels / 3 & 4 February 2024 [schedule](#) [News](#) [Spons](#)

FOSDEM 2024 / [Schedule](#) / [Events](#) / [Developer rooms](#) / [RISC-V](#) / [Lessons from porting software to RISC-V @ RISE](#)

## Lessons from porting software to RISC-V @ RISE

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### RISE (RISC-V Software Ecosystem)

Information Services  
Accelerating the development of open source software for the RISC-V architecture.

[View all 16 employees](#)

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Blog

### Java 21 and 22 Now Available on RISC-V: A Collaboration Between RISE and Eclipse Adoptium

Exciting news for developers and enthusiasts in the software development world! Java versions 21 and...

April 3, 2024



## RISC-V Optimization Guide: Actionable Optimization Recommendations



## Linux Plumbers Conference



THE LINUX FOUNDATION  
**OPEN SOURCE SUMMIT**  
NORTH AMERICA



## 2024 Andes RISC-V CON

# Meet with the RISE Team this Week



Accelerating the RISC-V  
Software Ecosystem

The RISC-V Software Ecosystem (RISE) project is a collaborative effort led by industry leaders with a mission to accelerate the development of open source software for the RISC-V architecture.



## Premier Members



## General Members



## Additional Presentations:

- Optimizing Software for RISC-V  
-> Nathan Egge, Google & RISE TSC Co-Chair
- Bringing Tier-1 support for Rust to 64-bit RISC-V Linux -> Daniel Silverstone, Codethink Ltd

## Visit us in the RISE Lounge

- Continuing the tradition started at NA Summit in 2023 - next to Registration (don't forget your sticker!)
- Numerous members in attendance and participating

