

# LLVM Release Process

---

## EuroLLVM 2026 Status Update

Cullen Rhodes, Douglas Yung, Tobias Hieta

# Introductions

---

# Recent Changes

---

- Two new Release Managers: **Cullen** and **Douglas**
- Stricter enforcement of acceptance criteria
- Automation updates
- Dropped split source packages

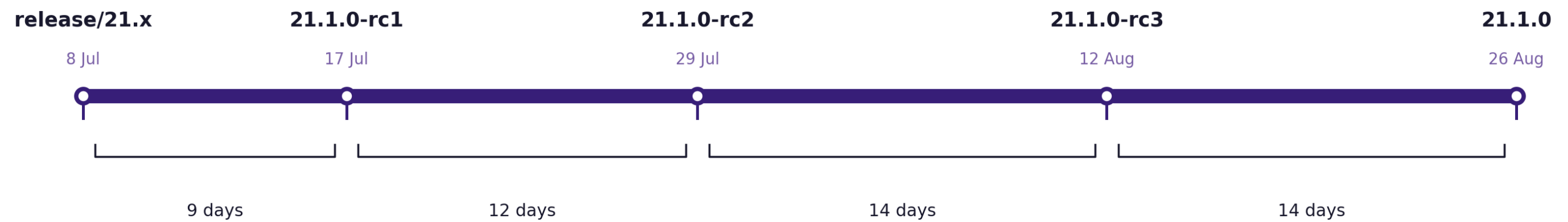
# Current Process

---

- Major release every **6 months**
- Branch: 2nd Tuesday in **January** (even) / **July** (odd)
- Point releases every 2 weeks, typically through X.1.5 or X.1.6

# LLVM 21 Release Timeline

---



20.x RC1: 16 days late · 21.x RC1: 6 days late · 22.x RC1: on time

# RC Acceptance Criteria

---

Phase	Accepted
RC1	Bug fixes, important optimizations, completion of features <b>started before branch</b>
RC2 / RC3	Bug fixes, very safe backend-specific improvements
Final (X.1.0)	Critical bugs and regressions only
Point releases	Bug fixes, critical performance, must maintain API+ABI compat

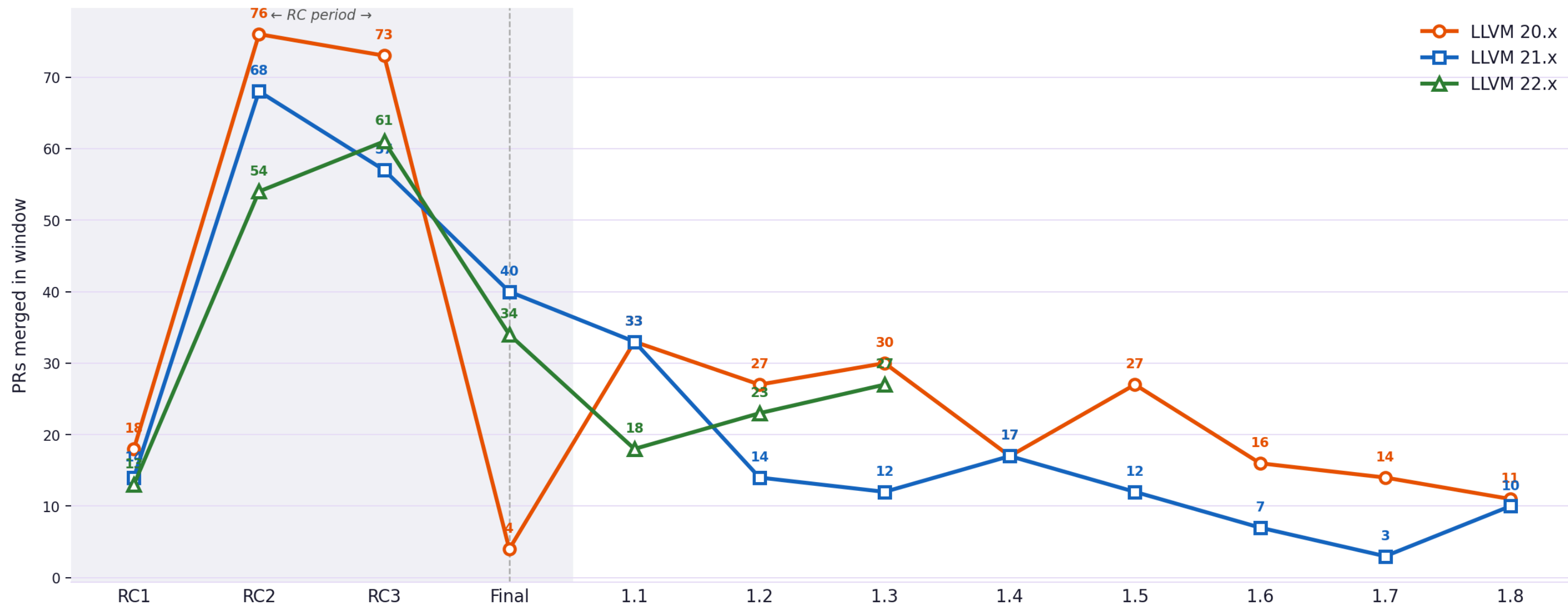
# By the Numbers

---

Release	PRs Merged	PRs Rejected	Issues
20.x	346	53	125
21.x	287	68	122
22.x	233	76	89

Rejection rate rising: **13%** → **19%** → **25%**

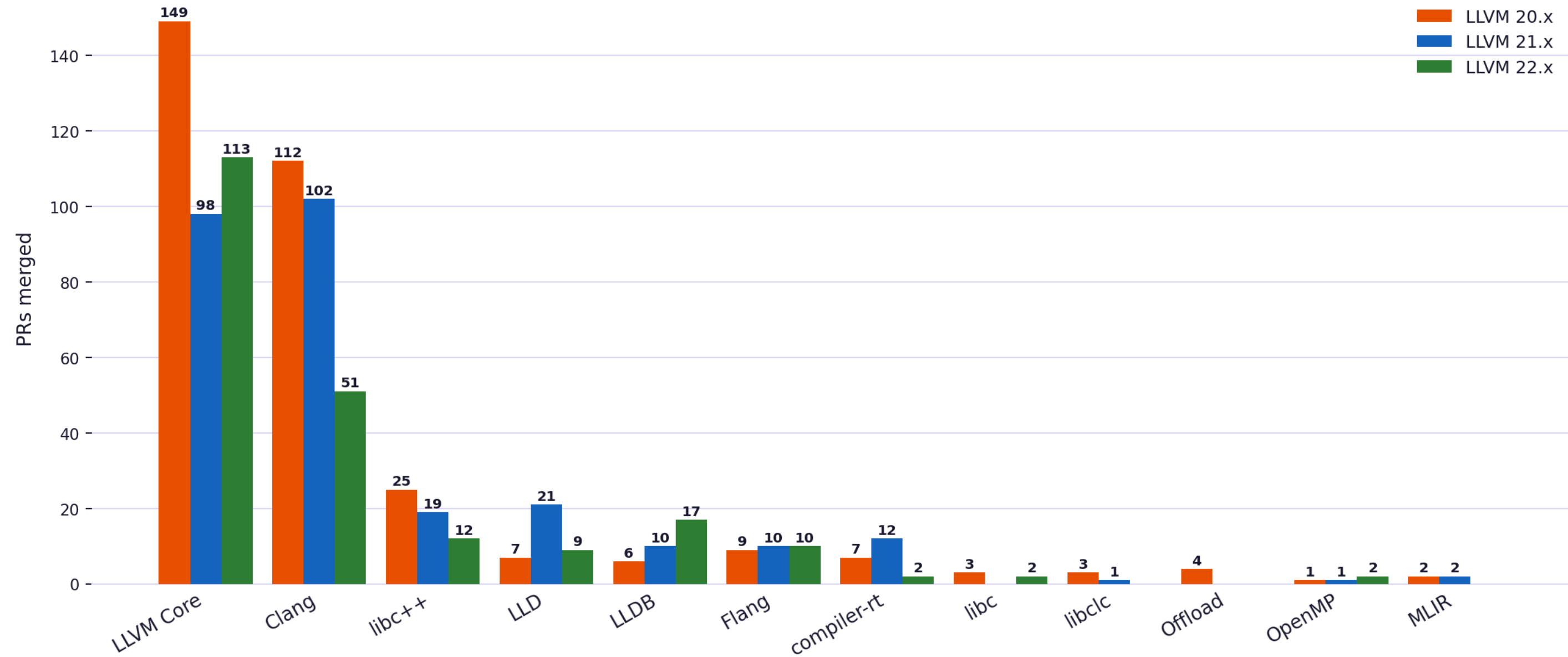
# PRs Merged by Phase



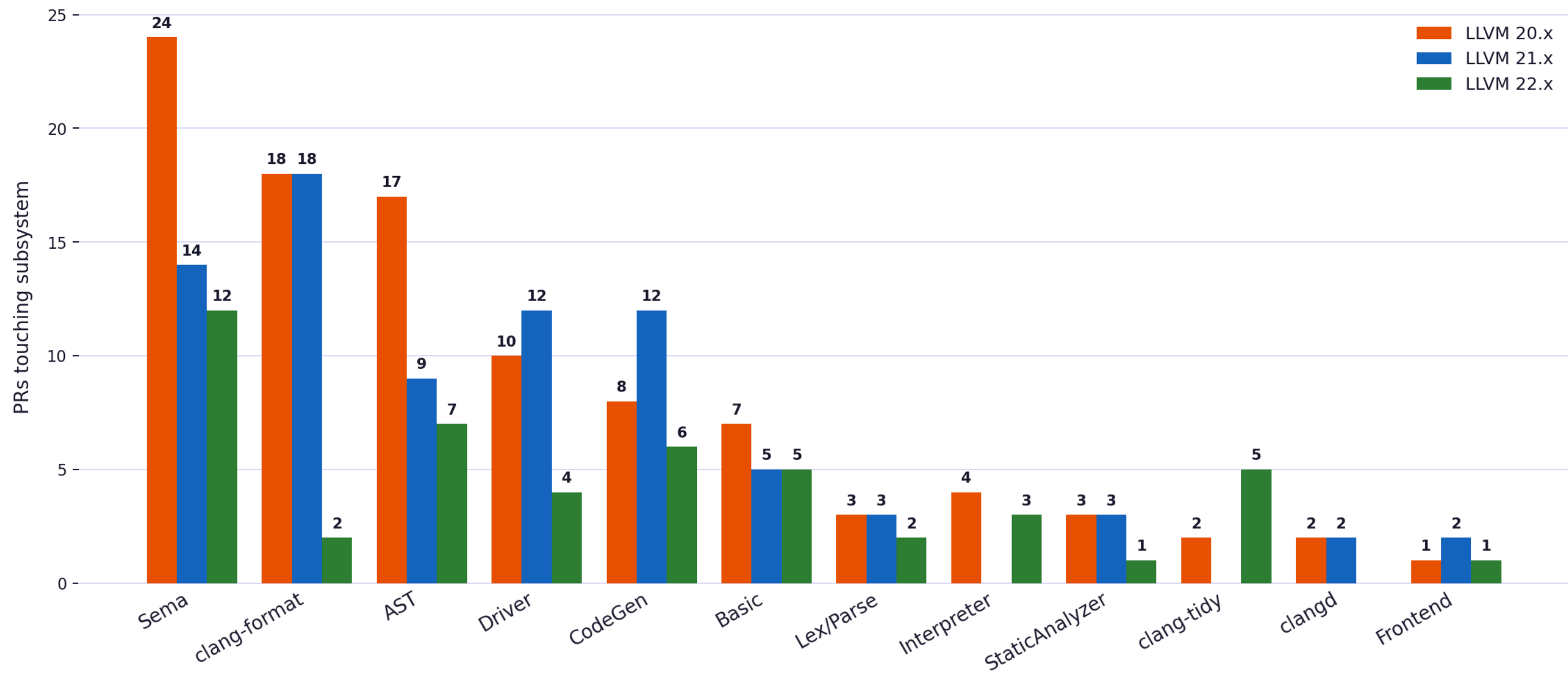
RC1→RC2 always **4× busier** than Branch→RC1 · RC3→Final: **4 PRs**  
(20.x) vs **34-40** (21.x / 22.x)



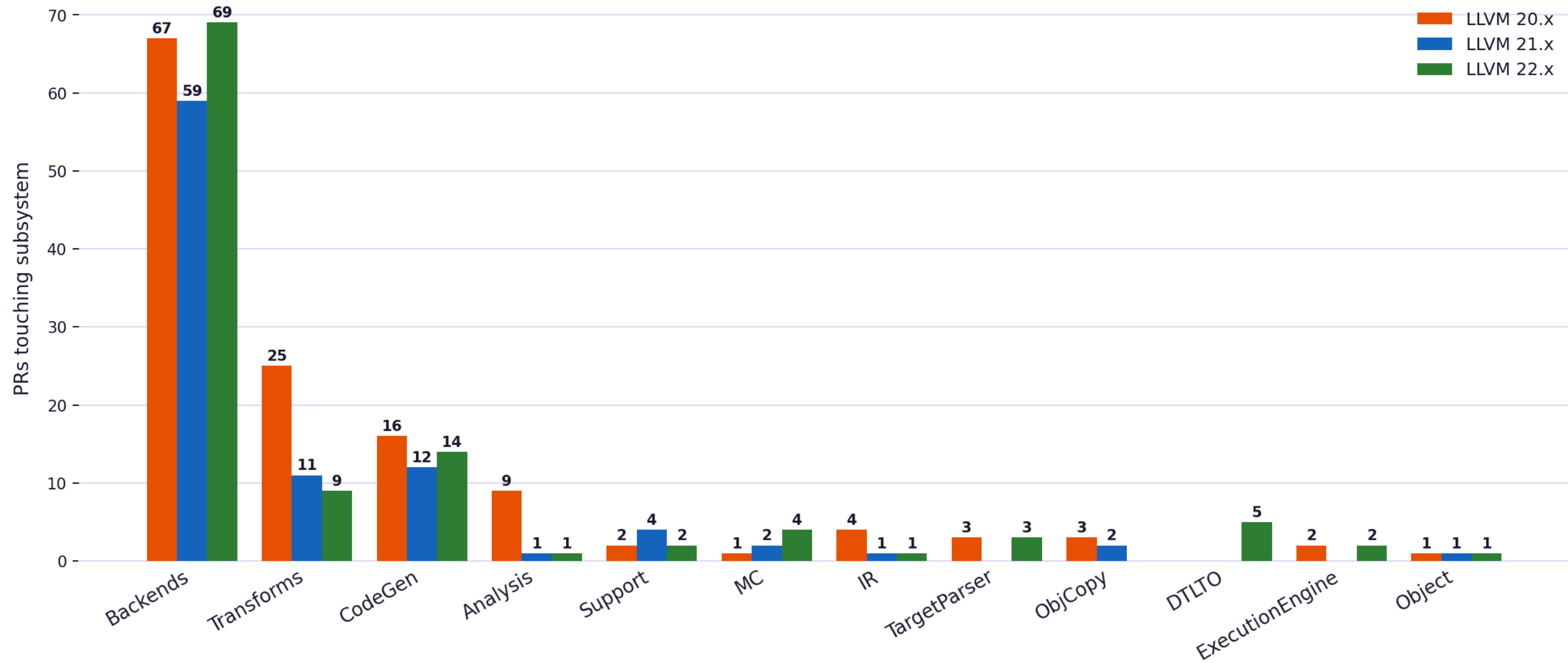
# PRs by Subproject



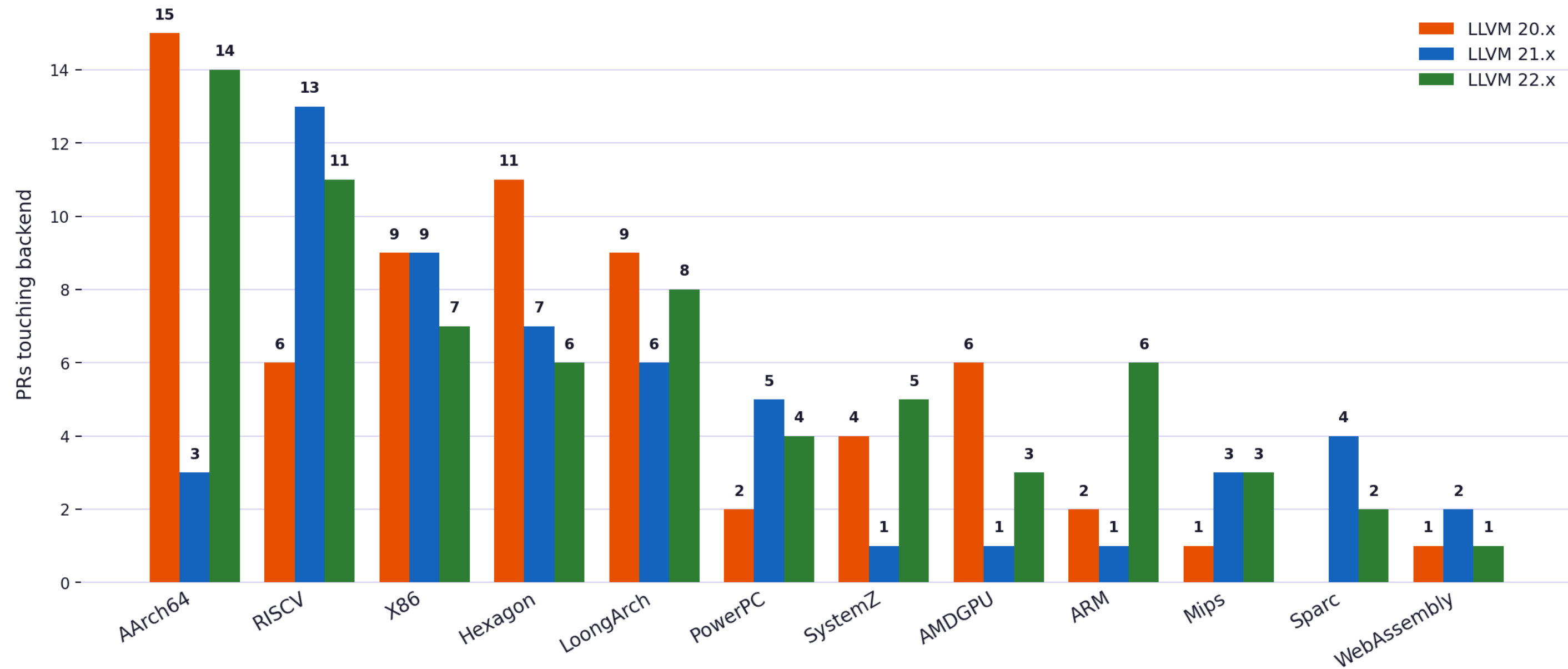
# Clang: Subsystems



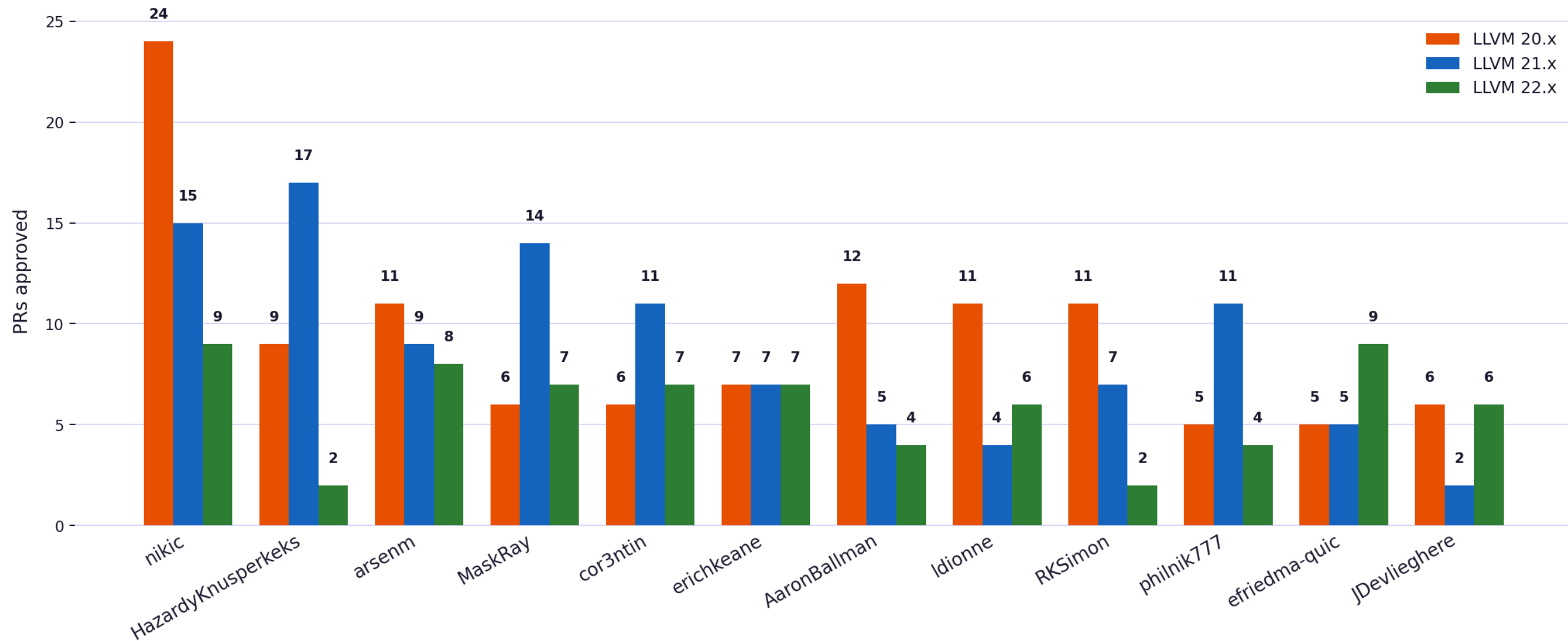
# LLVM Core: Subsystems



# LLVM Core: Backends

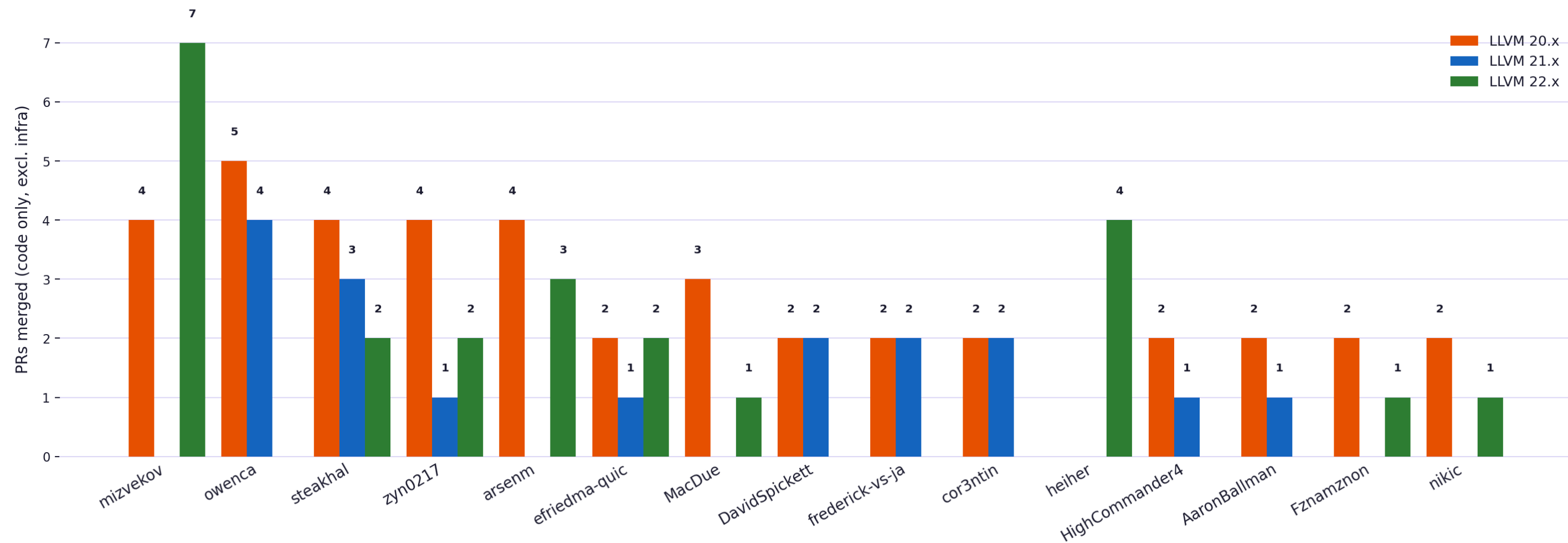


# Who Reviews PRs



**nikic** alone: 48 PRs across 3 releases · top 5 reviewers handle the majority of all approvals

# Who Submits PRs



~40 people do repeated work · most contributors appear only once

# What Works

---

- Predictable cadence
- Community knows when to expect a release
- Milestone tracking on GitHub
- Release manager availability and responsiveness

# What Doesn't Work

---

1. **No defined inclusion criteria** — every PR is a judgement call
2. **Flaky CI** blocks binary releases even when the code is ready
3. **Accidental ABI breakage** slips through reviews
4. **RC phase PR flood** — nobody looks until RC1 ships



# Join us at the Roundtable

---

Right after this talk

What works? What should change? Come tell us.

## Q&A

---