Progressive Delivery - Experimenting with features in production while minimizing risk

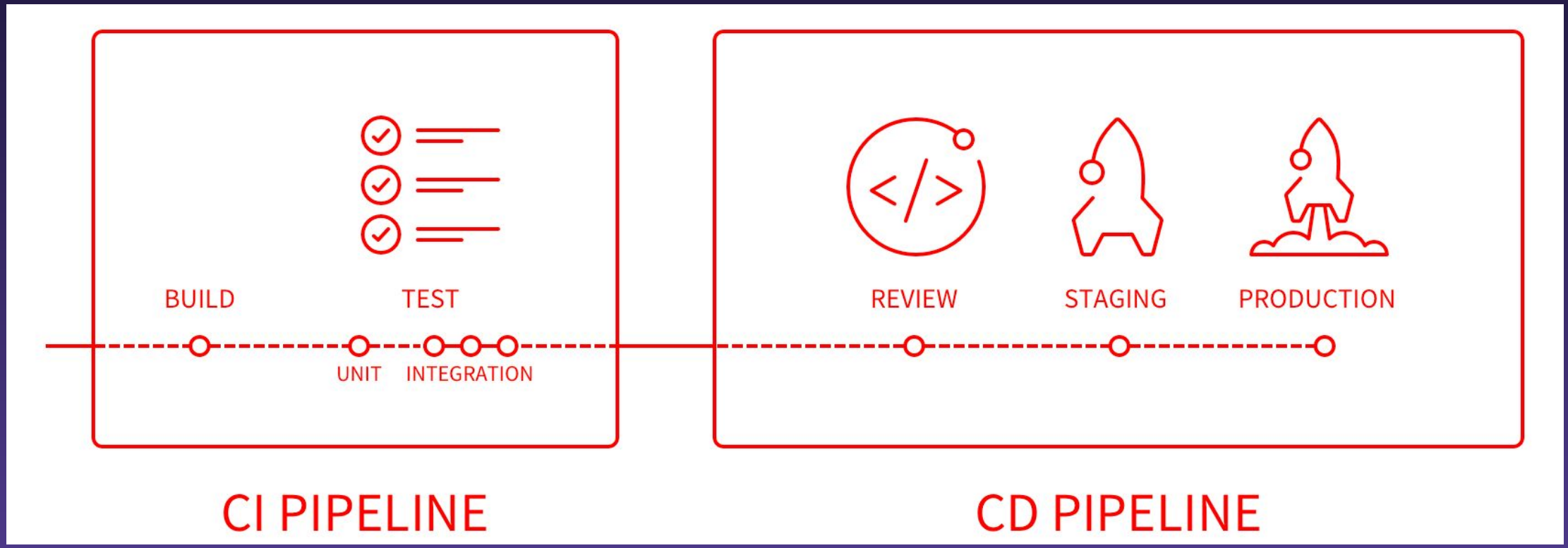
Orit Golowinski

Senior Product Manager

GitLab

About Me

- My name is Orit Golowinski.
- I Senior Product Manager of Progressive Delivery at GitLab.
- I have a B.Sc. in computer Engineering and am in the final semester of my MBA, specializing in Data Systems
- I have over 15 years of experience in the Hi-tech industry, previous roles included director of R&D infrastructure and director of QA
- I have three girls
- I am a certified pastry chef but never worked as one



Continuous Delivery

Software can be released to production at any time.

Progressive Delivery

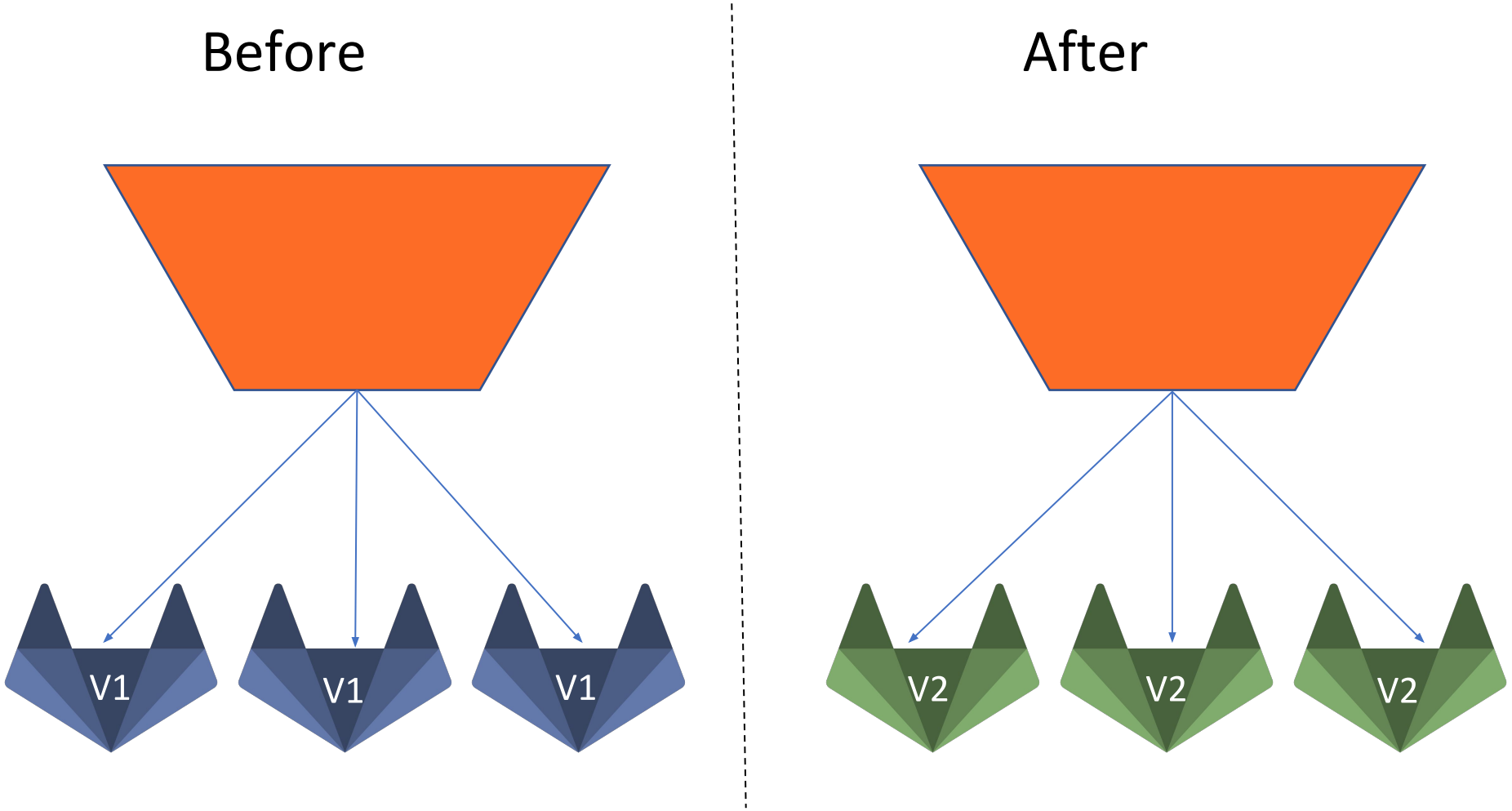
"Progressive delivery is continuous delivery with fine-grained control over the blast radius."

— *James Governor, RedMonk*

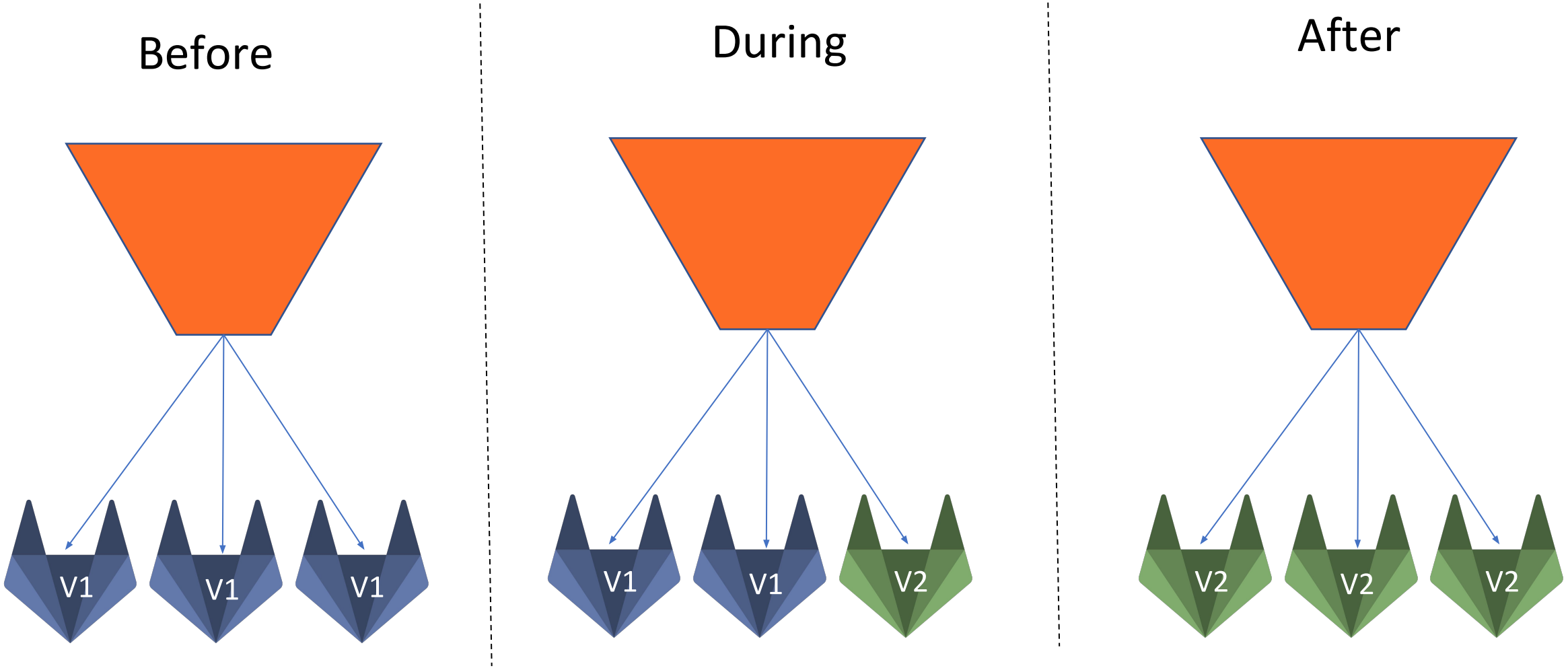
I DON'T ALWAYS TEST MY CODE
38
BUT WHEN I DO, I DO IT IN PRODUCTION
makeameme.org

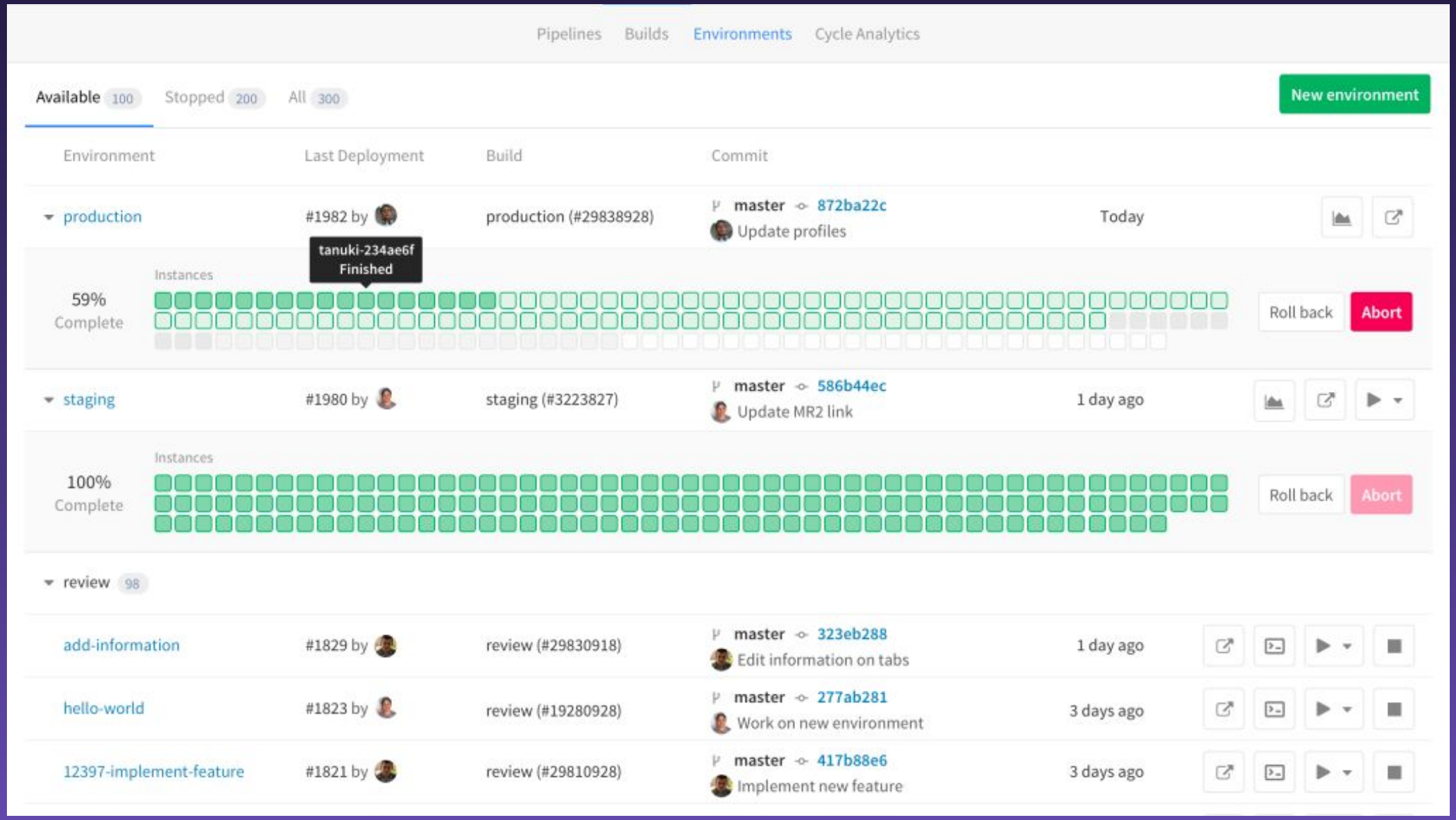
How to expose new code to production?

Blue/Green Deployments



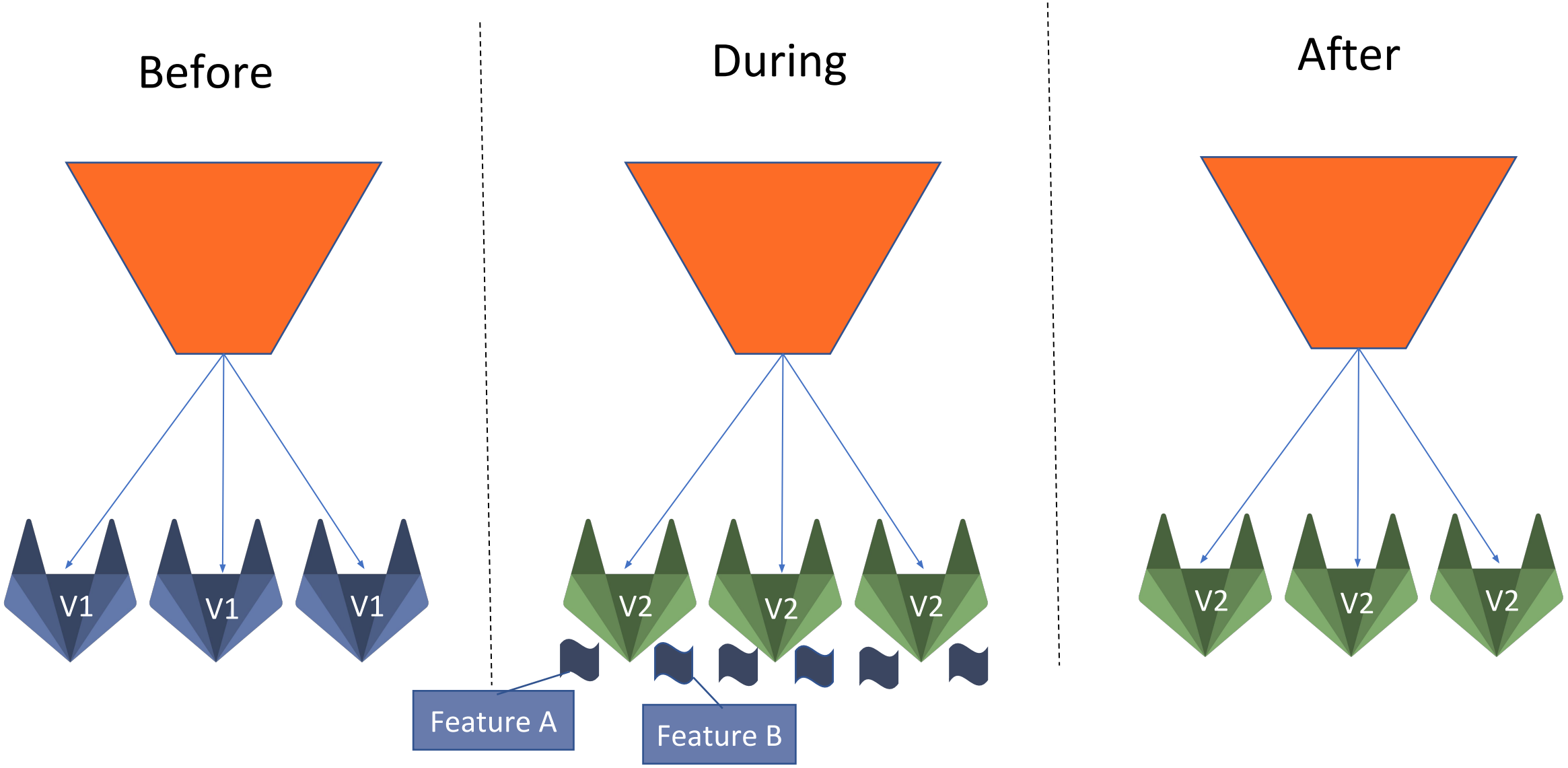
Canary Release



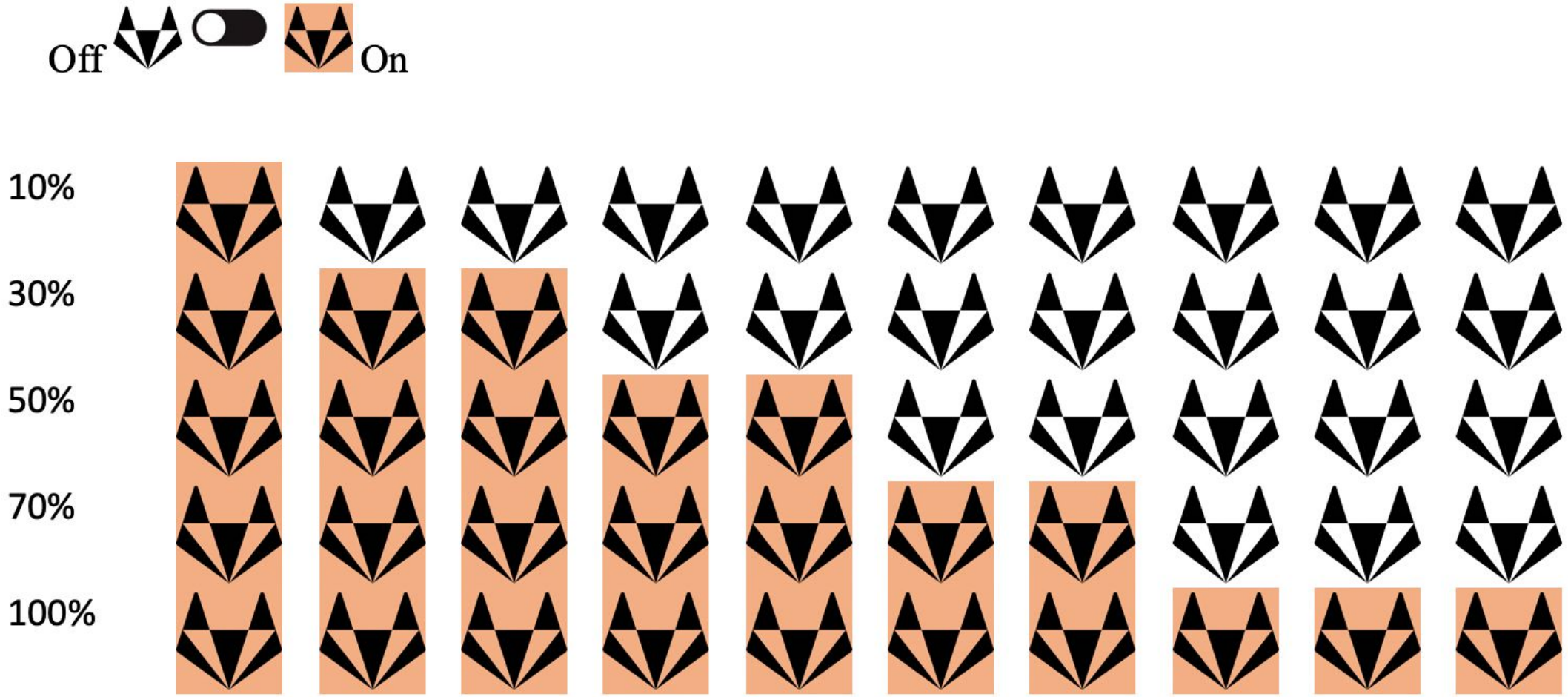


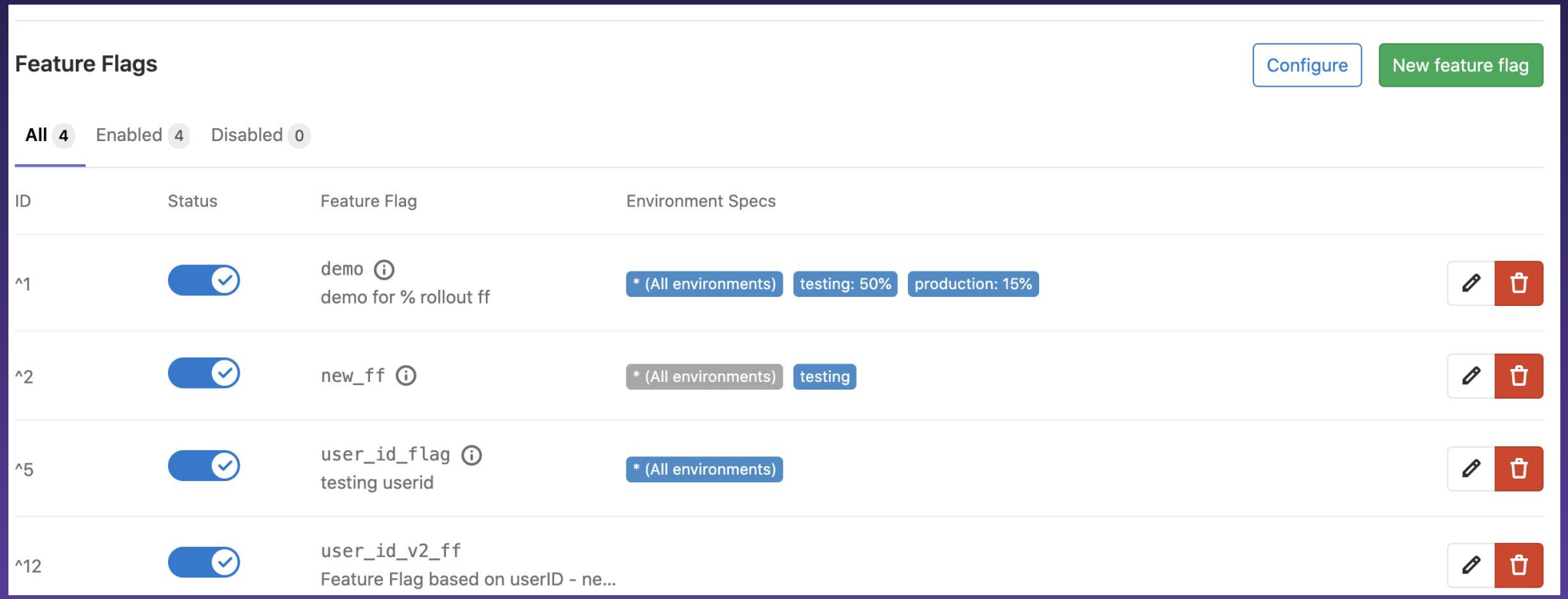
Canary Release in GitLab

Feature Flags



Feature flags based on percent rollout



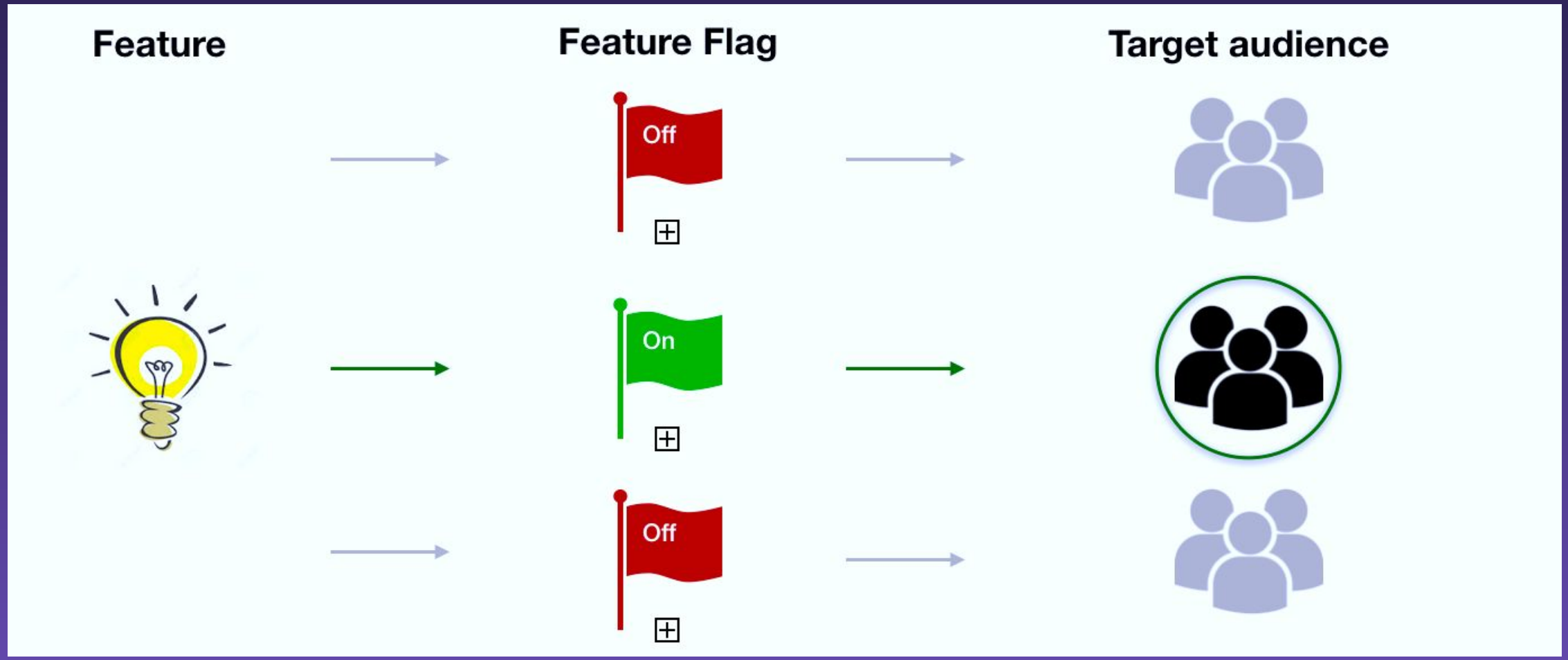


Feature Flags in GitLab

Comparison between feature flags and canary

	Feature Flags	Canary
Placement	Application	infrastructure networking layer
Orchestrated by	developers, product managers, QA	DevOps, SREs
percentage of traffic/users	V	V
Whitelisting IP addresses	V	V
Rule based (application rules - # of songs in a playlist)	V	X
Group based (domain/tier etc.)	V	X
Rollback	Granular - Specific feature	Entire Deployment

Combining Feature Flags with Canary



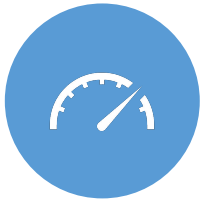
A/B Testing

Progressive Delivery Pros

Ability to control feature distribution

In case of failure, only a small group of users are exposed

Ability to test in production before rolling out to all users



Fast Feedback and Metrics for new features

More roles on the team can manage new features in production

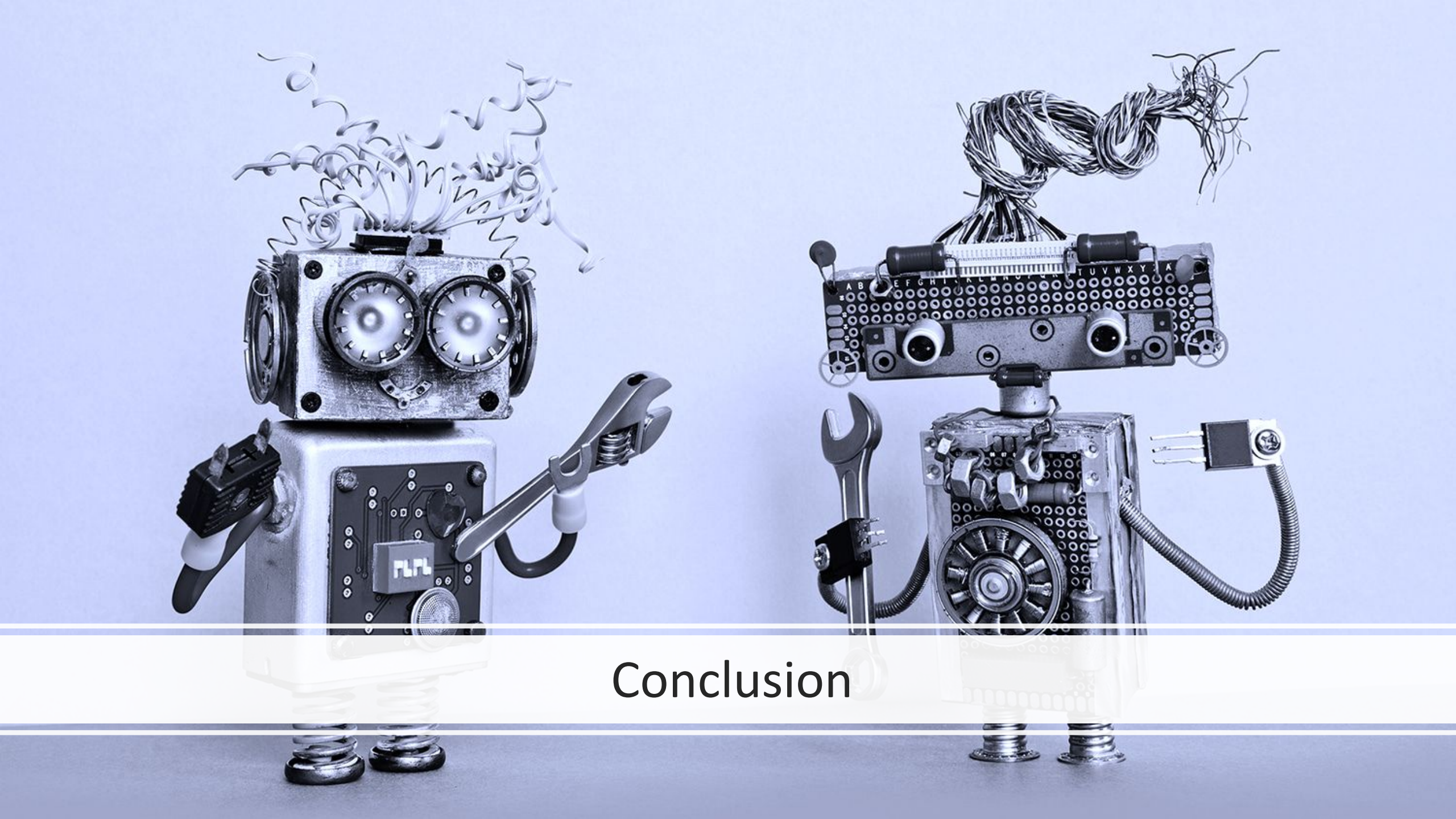
Fast rollback in case needed

Progressive Delivery
Cons

Need to monitor Latency, Traffic, Errors and saturation

Can introduce technical debt

More complexity to understand customer scenarios



Conclusion

Thank you!

- For feedback, comments or questions, please feel free to contact me:
- Email: ogolowinski@gitlab.com
- : GO_Orit