

SLO adoption is a

technical-socio

problem?

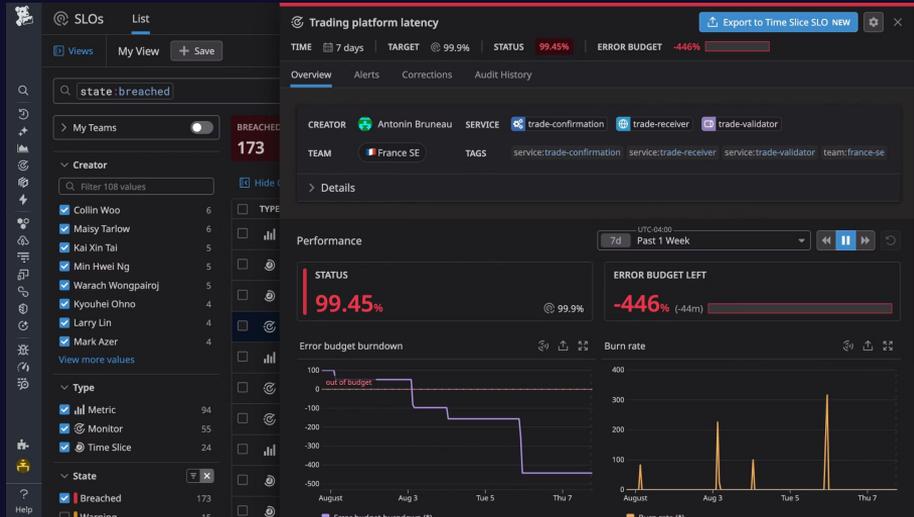
# Problem



# Solution

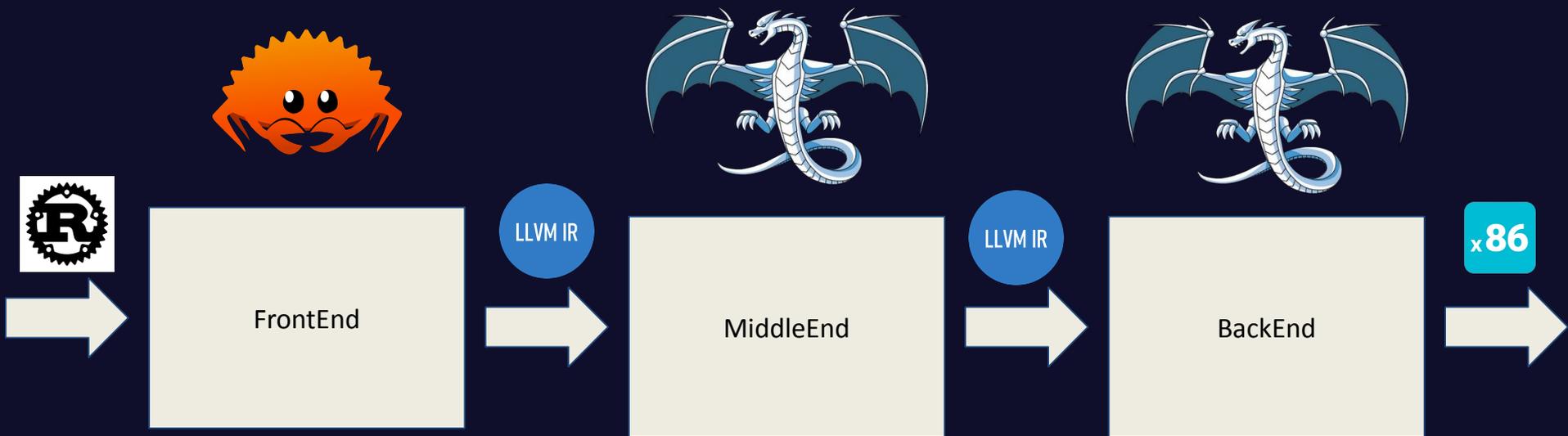
## Build a compiler?

Codified best practices! 🙌



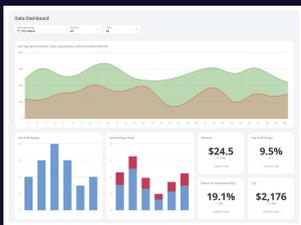
# Everything is a compiler problem.

## Compilers 101.

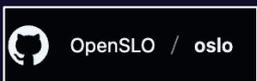
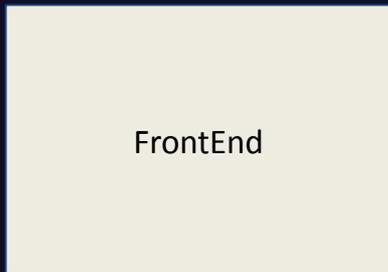


# Everything is a compiler problem.

## FrontEnd.



Data



# Everything is a compiler problem.

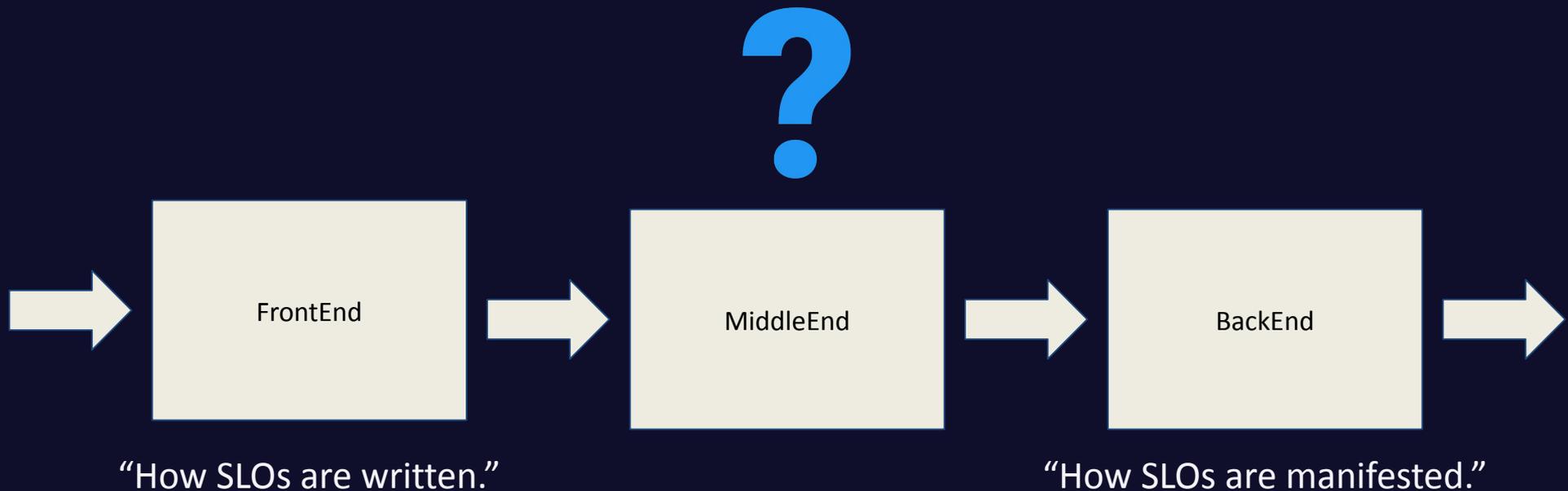
## Backend.



“How SLOs are written.”

# Everything is a compiler problem.

MiddleEnd?



# What goes into a *Good* SLO?

- Communicable.
- User centric.
- Business aligned.
- **Sensible.**



MiddleEnd

# Sensible

Semantically correct query equations.

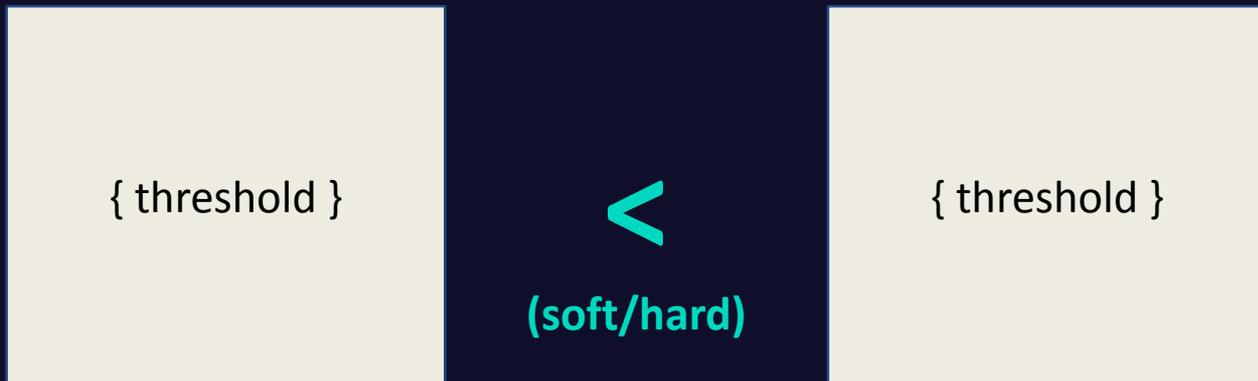
Query { units, domain }

---

Query { units, domain }

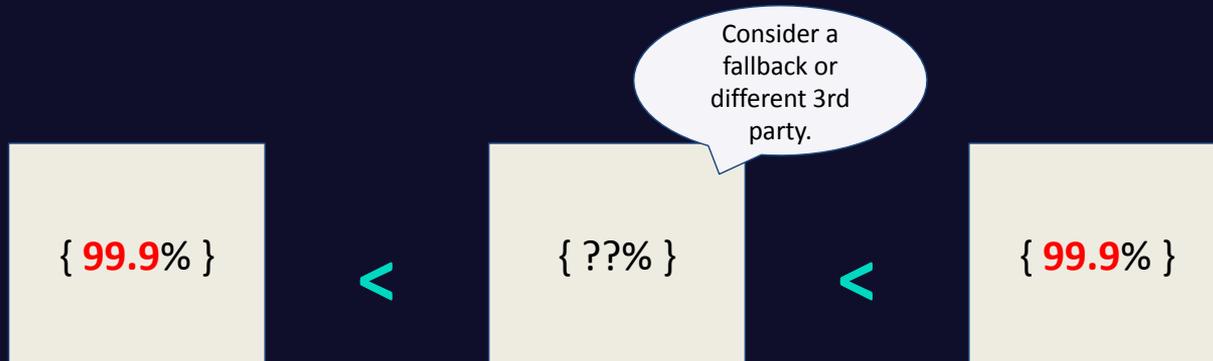
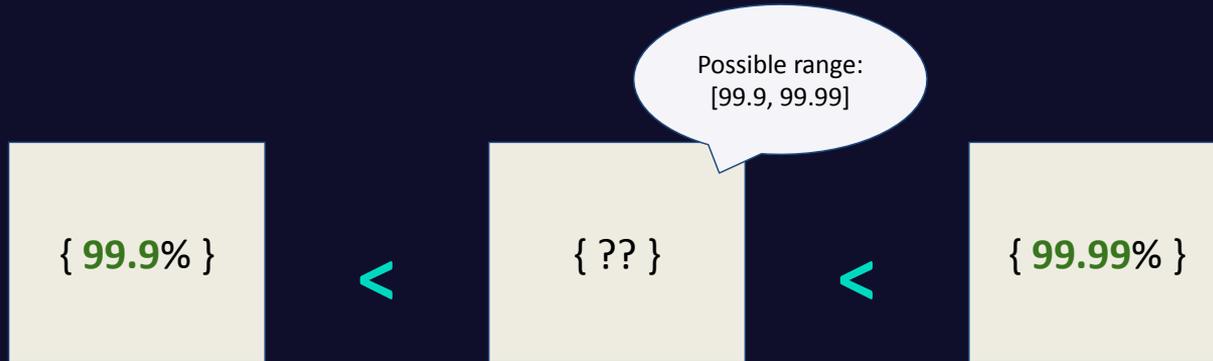
# Sensible

Valid dependency relationships - system modeling.



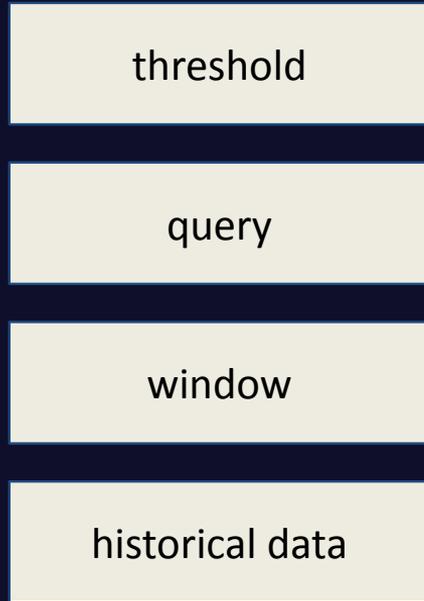
# Sensible

## Valid dependency relationships - suggestions.



# Sensible

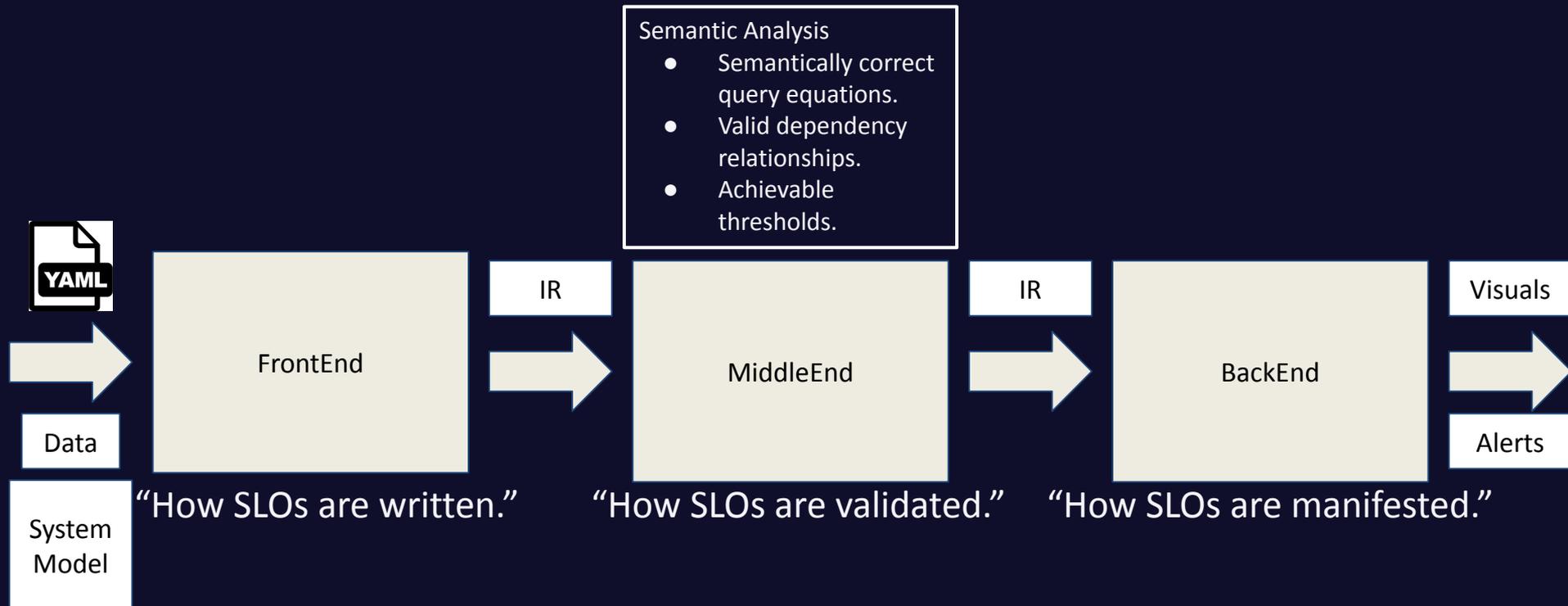
## Achievable thresholds - backtesting.



**Warning:** *this threshold for this query over this time frame has never been achieved.*

# Everything is a compiler problem.

The whole picture.



# But I want this now!



Plugin system.

**NOBL9**

Composite SLOs.

A very simple example:

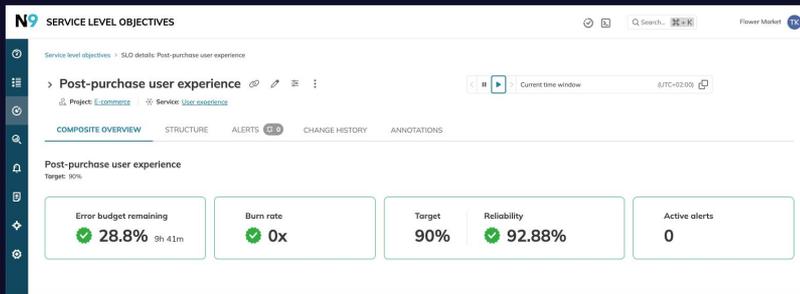
from `plugins/x/y/plugin.go`

```
package testplugin

import "context"

const (
    SLIPluginVersion = "prometheus/v1"
    SLIPluginID      = "test_plugin"
)

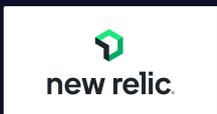
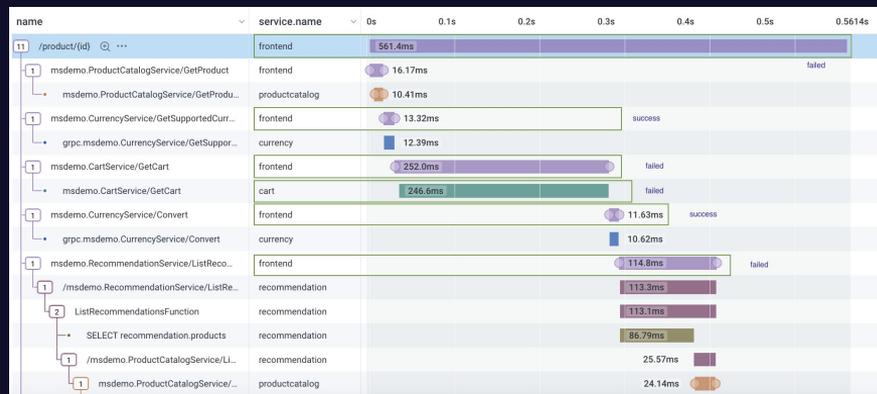
func SLIPlugin(ctx context.Context, meta, labels, options map[string]string) (string, error) {
    return "rate(my_raw_error_ratio_query{{{.window}}})", nil
}
```



# But I want this now!



Multi-service SLOs.



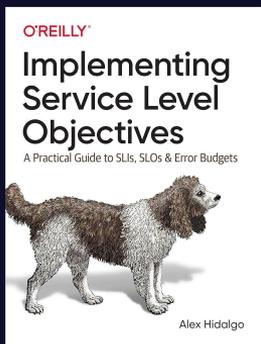
Provide SLI recommendations.

Name	Related entity	95%	Last 3 hours compliance	Last 24 hours compliance	Last 7 days compliance	Last 28 days compliance	Last 3 hours error budget	Last 7 days error budget	Last 28 days error budget
Cumulative layout shifts	WebPortal Browser application	98.5%	98.55%	98.67%	98.67%	98.69%	11%	11%	12%
First input delay below 300ms	WebPortal Browser application	95%	96.23%	95.89%	96.13%	96.3%	18%	23%	24%
Largest contentful paint is less than 4 seconds	WebPortal Browser application	95%	93.78%	93.92%	94.04%	94.12%	8%	8%	8%
Latency	Billing Service Service - API	95%	99.49%	99.28%	99.19%	99.23%	88%	84%	83%
Response time below 0.5 sec and error free	Login Service Service - API	95.96%	100%	100%	100%	100%	100%	100%	100%
Response time below 0.5 seconds	WebPortal Service - API	94%	95%	95.45%	95.3%	95.29%	24%	22%	20%
Response time below 0.5 seconds	WebPortal Service - API	95%	95%	95.45%	95.3%	95.47%	8%	8%	8%
Success	Billing Service Service - API	99%	100%	100%	100%	100%	100%	100%	100%
Success	WebPortal Service - API	95.5%	99.61%	99.64%	99.64%	99.64%	27%	27%	28%

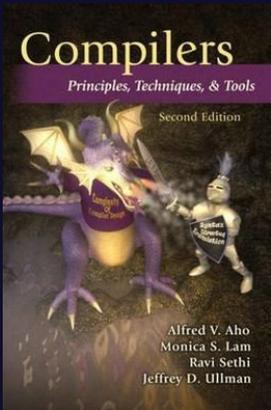
# I'm Hacking on this...



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Is this interesting? If so, let's chat.