

A DevOps Mindset

When You Can't Get There From Here

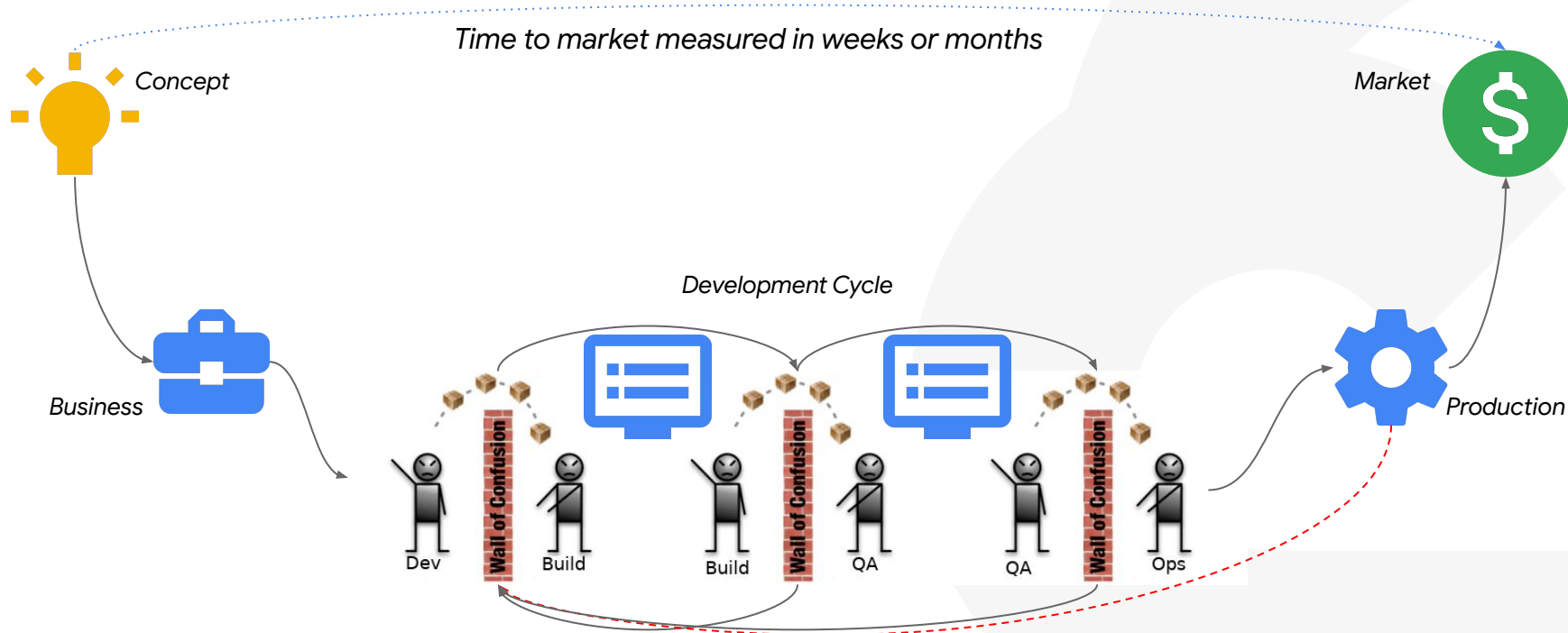
Google Cloud



Tara Hernandez

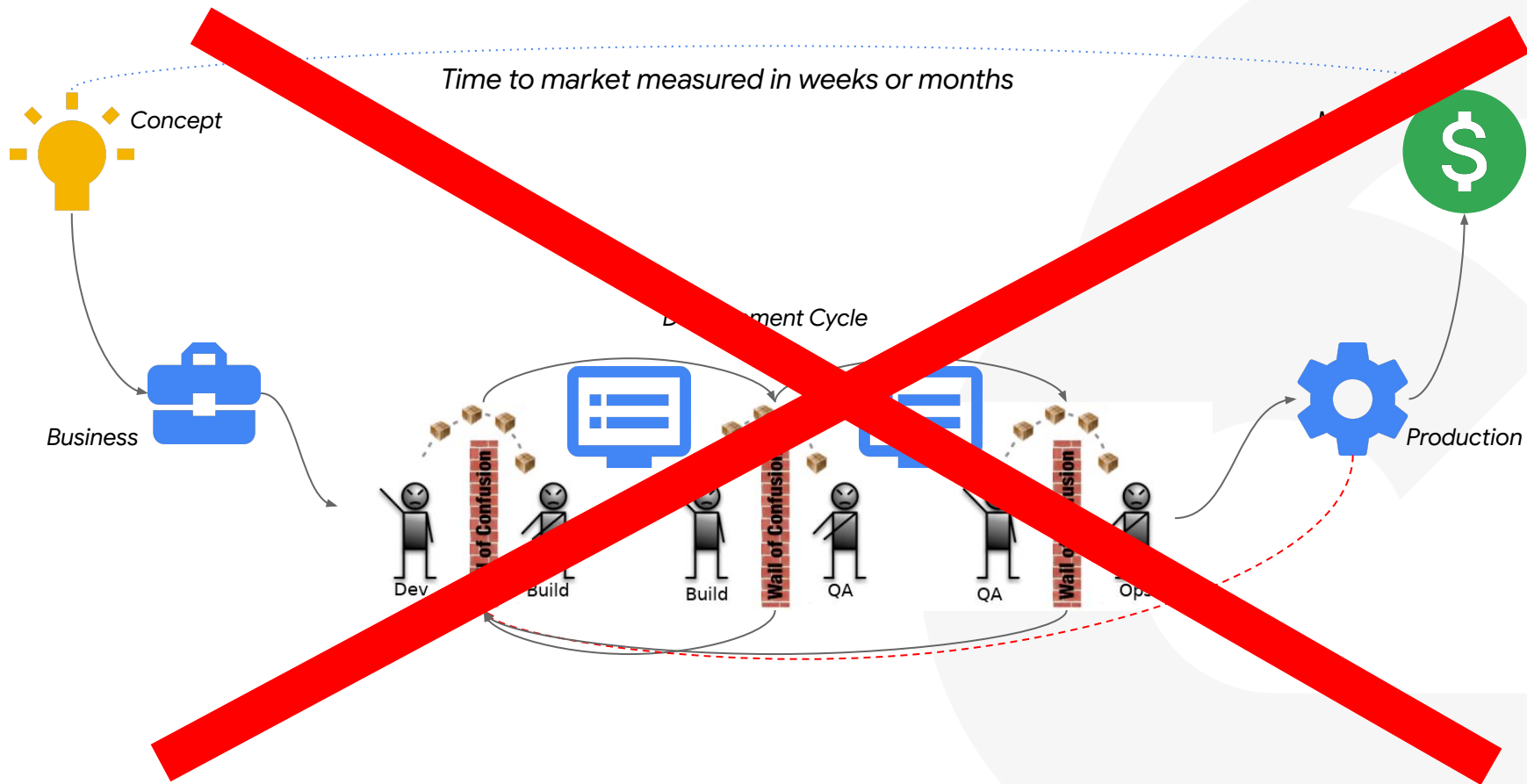
Senior Engineering Manager
Google Cloud



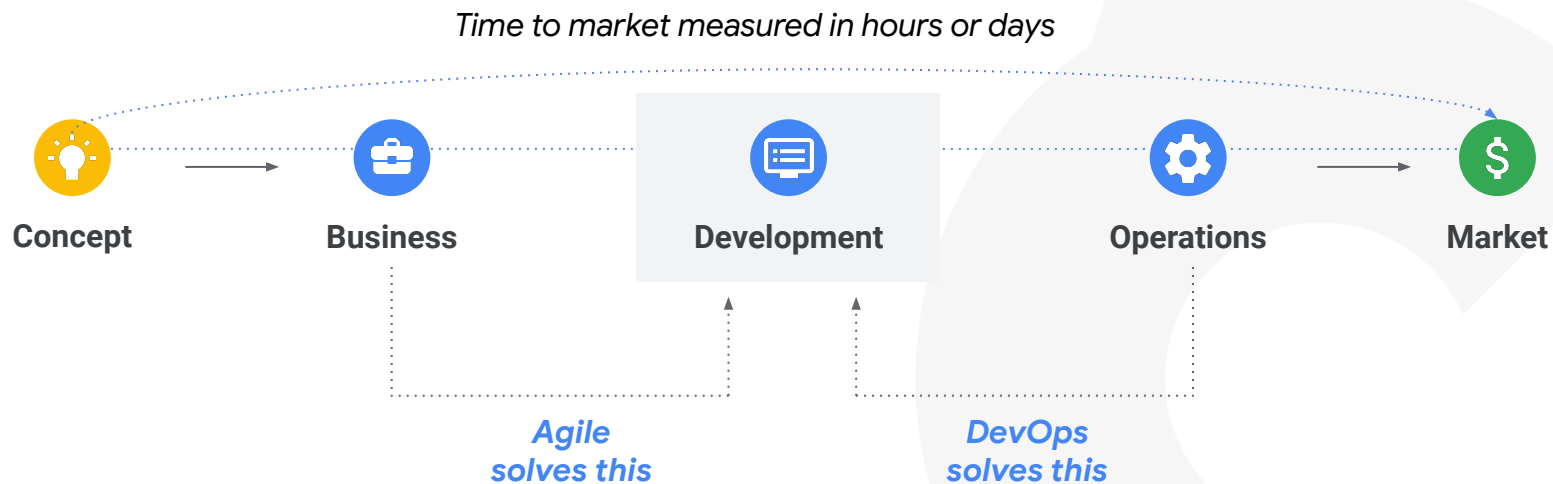


WORKED FINE IN DEV





Bringing ideas to market faster



Agile In A Nutshell...

Individuals and interactions

ver

Processes and tools

Working software

Over

Comprehensive documentation

Customer collaboration

Over

Contract negotiation

Responding to change

Over

Following a plan

DevOps is:

A **cross-functional community of practice** dedicated to the study of building, evolving and operating rapidly changing, secure, resilient systems at scale.

-Jez Humble
Author,

Accelerate: The Science of Lean Software and DevOps

DevOps Philosophy Priorities

1

Organizational
culture

2

Technical
practices

3

Management
practices

The DevOps principles in action **enable engineering teams to frequently release new features and services safely.**

Types of Culture

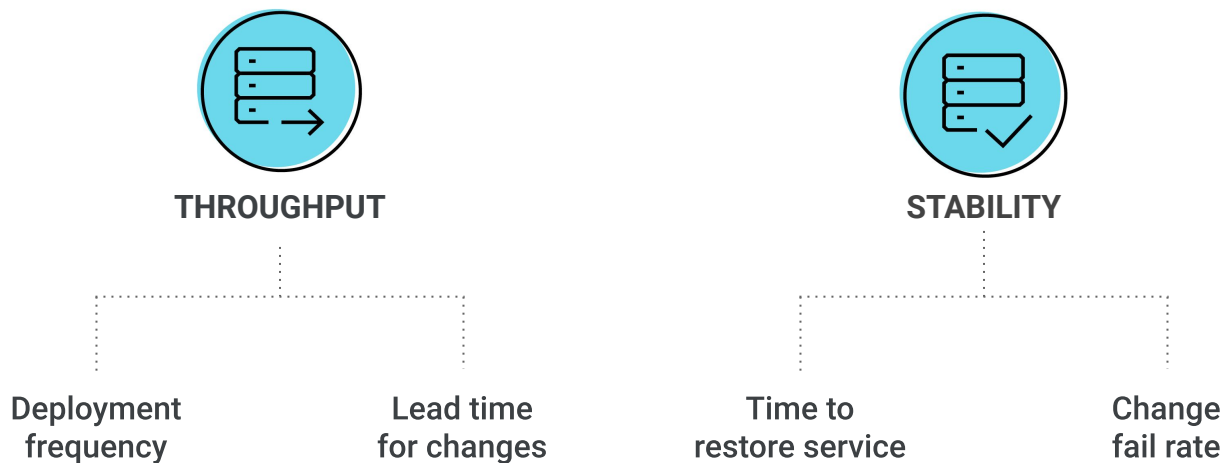
Pathological (power-oriented)	Bureaucratic (rule-oriented)	Generative (performance-oriented)
Low cooperation	Modest cooperation	High cooperation
Messengers shot	Messengers neglected	Messengers trained
Responsibilities shirked	Narrow responsibilities	Risks are shared
Bridging discouraged	Bridging tolerated	Bridging encouraged
Failure leads to scapegoating	Failure leads to justice	Failure leads to enquiry
Novelty crushed	Novelty leads to problems	Novelty implemented

DevOps Culture comes from **leadership granting autonomy**, which in turn fosters **trust and communication**.

More Specifically

- Establishing and communicating goals, but letting the team decide how the work will be done
- Removing roadblocks by keeping rules simple
- Allowing the team to change rules if the rules are obstacles to achieving the goals
- Letting the team prioritize good outcomes for customers, even if it means bending the rules
- Encourage a culture of learning through reviews and retrospectives

Measuring the Success Signals

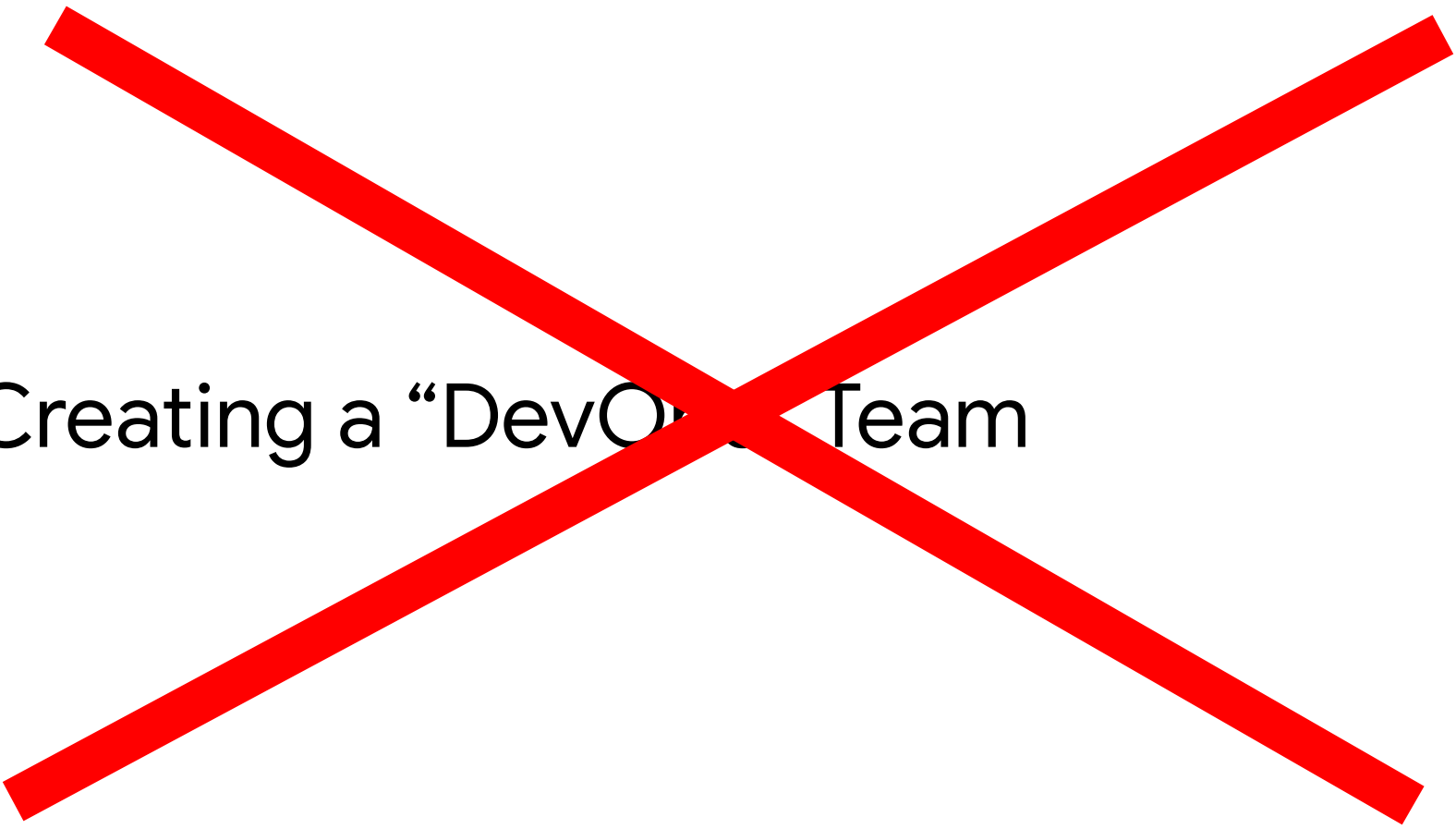


Signals of Team Success

Aspect of Software Delivery Performance	Elite ^a	High	Medium	Low
Deployment frequency For the primary application or service you work on, how often does your organization deploy code?	On-demand (multiple deploys per day)	Between once per hour and once per day	Between once per week and once per month	Between once per week and once per month
Lead time for changes For the primary application or service you work on, what is your lead time for changes (i.e., how long does it take to go from code commit to code successfully running in production)?	Less than one hour	Between one day and one week	Between one week and one month ^b	Between one month and six months ^b
Time to restore service For the primary application or service you work on, how long does it generally take to restore service when a service incident occurs (e.g., unplanned outage, service impairment)?	Less than one hour	Less than one day	Less than one day	Between one week and one month
Change failure rate For the primary application or service you work on, what percentage of changes results either in degraded service or subsequently requires remediation (e.g., leads to service impairment, service outage, requires a hotfix, rollback, fix forward, patch)?	0-15%	0-15%	0-15%	46-60%

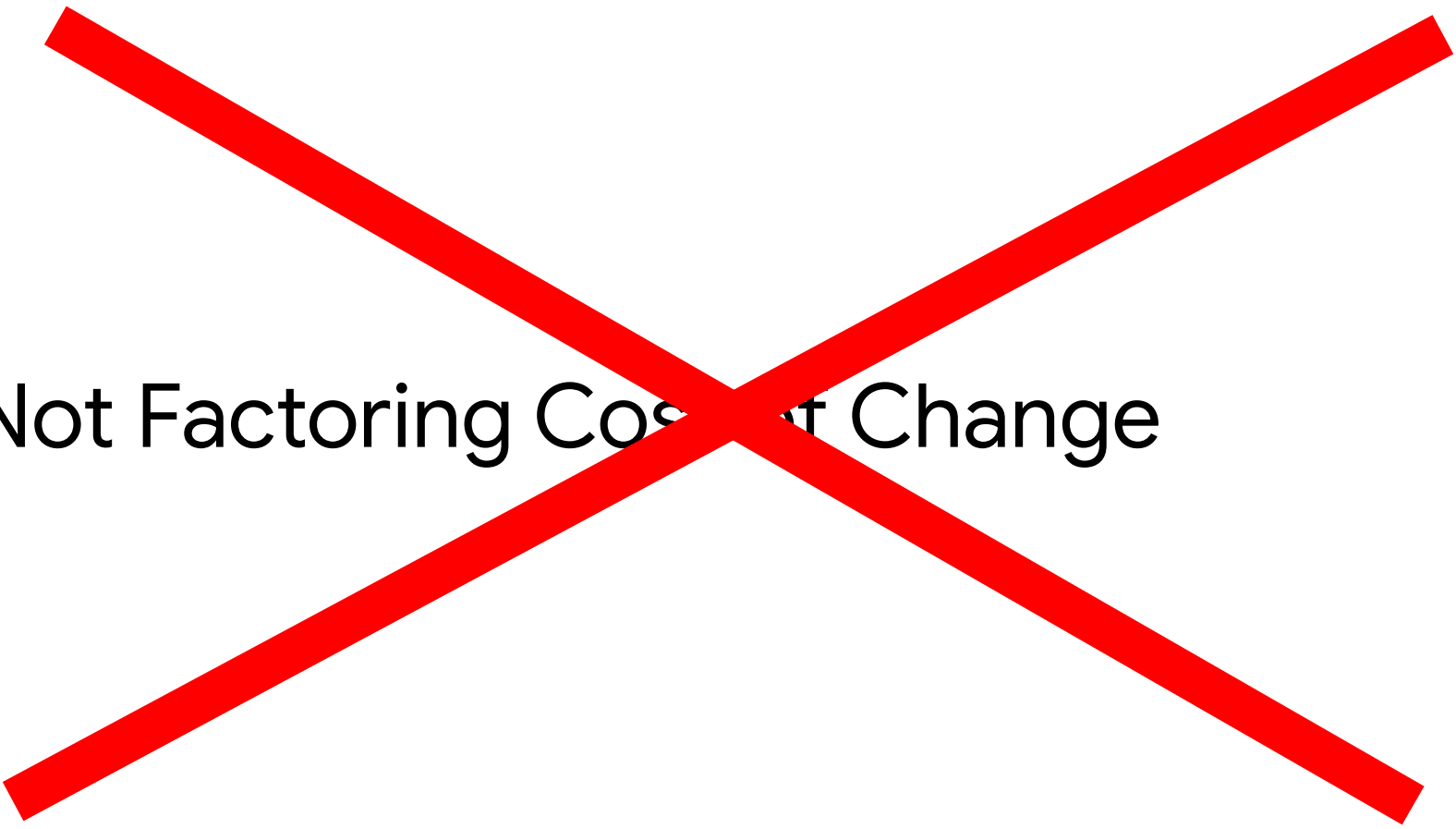
How To Not Become Elite

Creating a “DevOps” Team



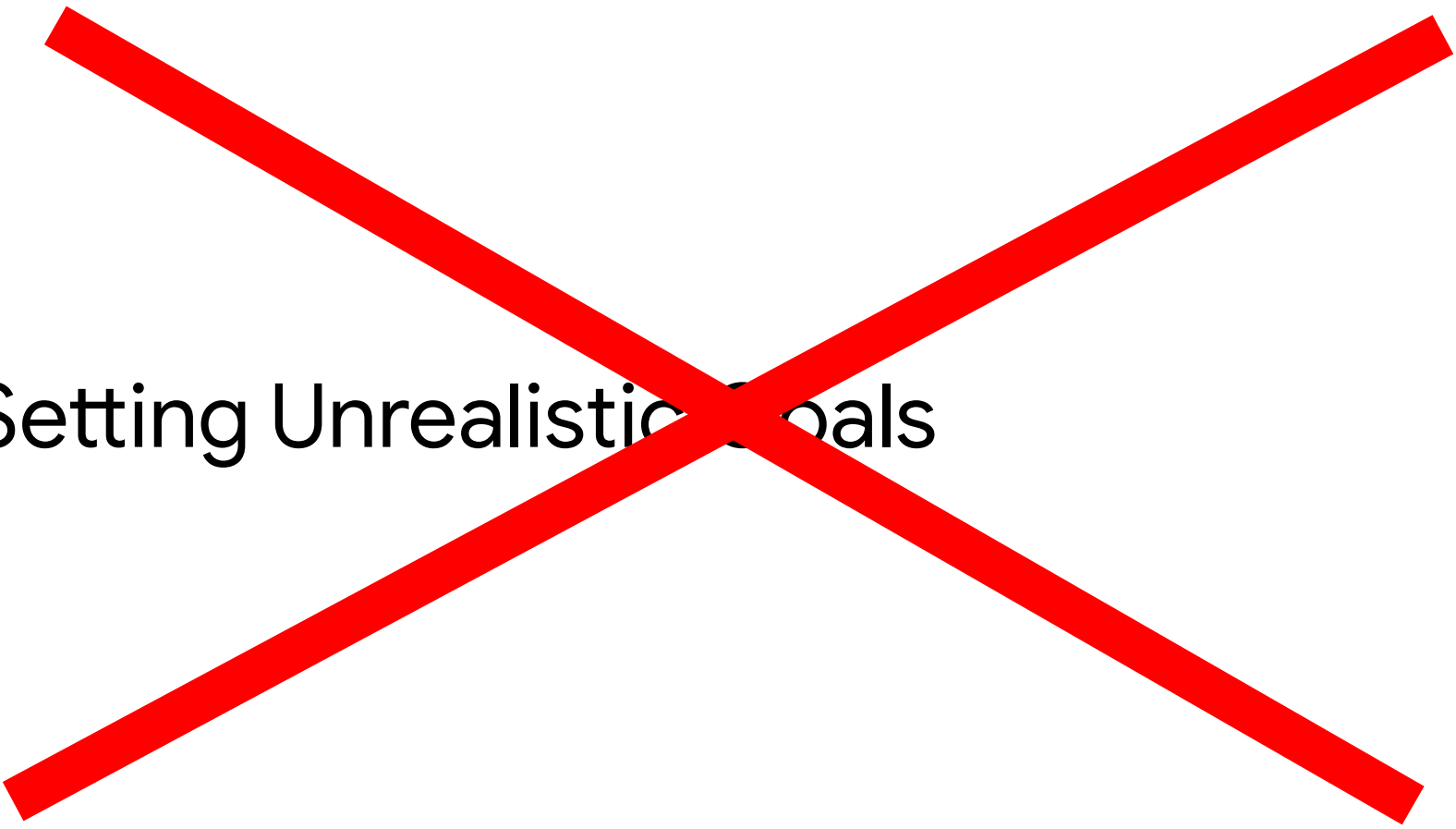
Creating a “DevOps” Team

Not Factoring Cost of Change



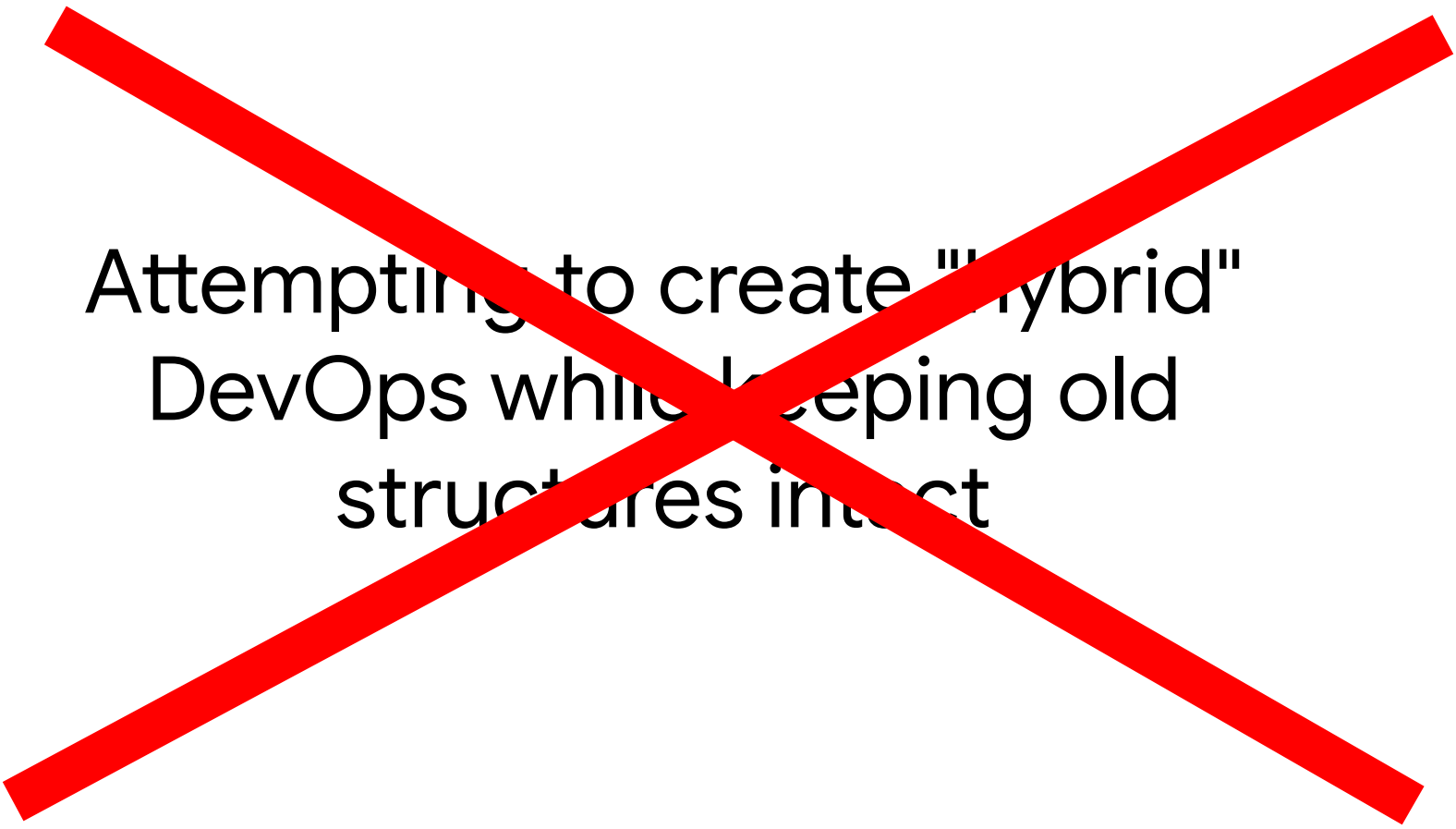
Not Factoring Cost Change

Setting Unrealistic Goals



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Attempting to create "hybrid"
DevOps while keeping old
structures intact



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DevOps while keeping old
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Elite Wins!

- Elite teams 1.8x more likely to recommend their team as a great place to work
- Elite teams 1.5x more likely to use retrospectives as a tool to improvement
- Elite teams have:
 - 46x more frequent code deployments
 - 2555x faster lead time to commit
 - 7x lower change failure rate
 - 2604x faster recovery from failure

Be Elite!



Thank you

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