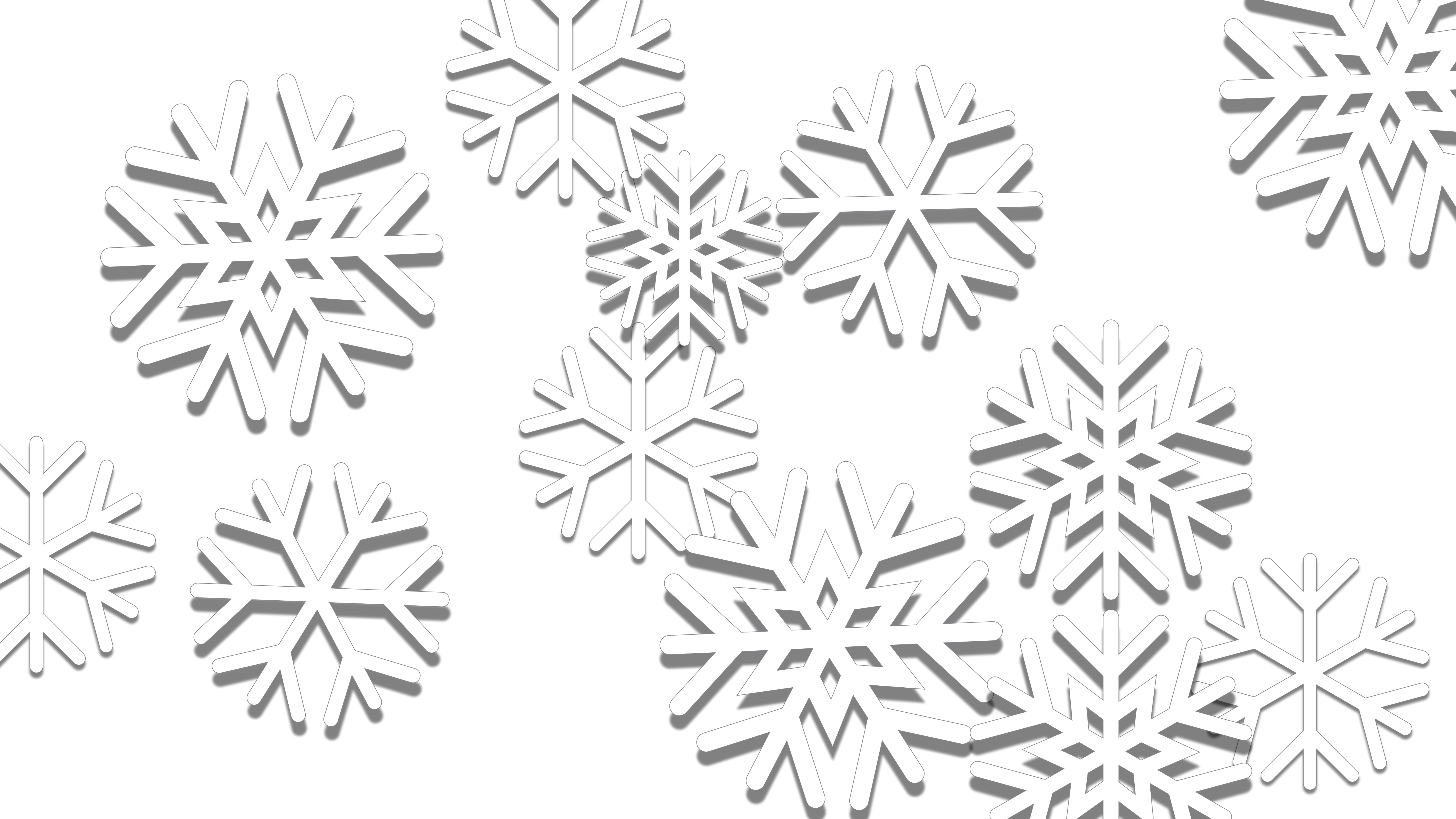
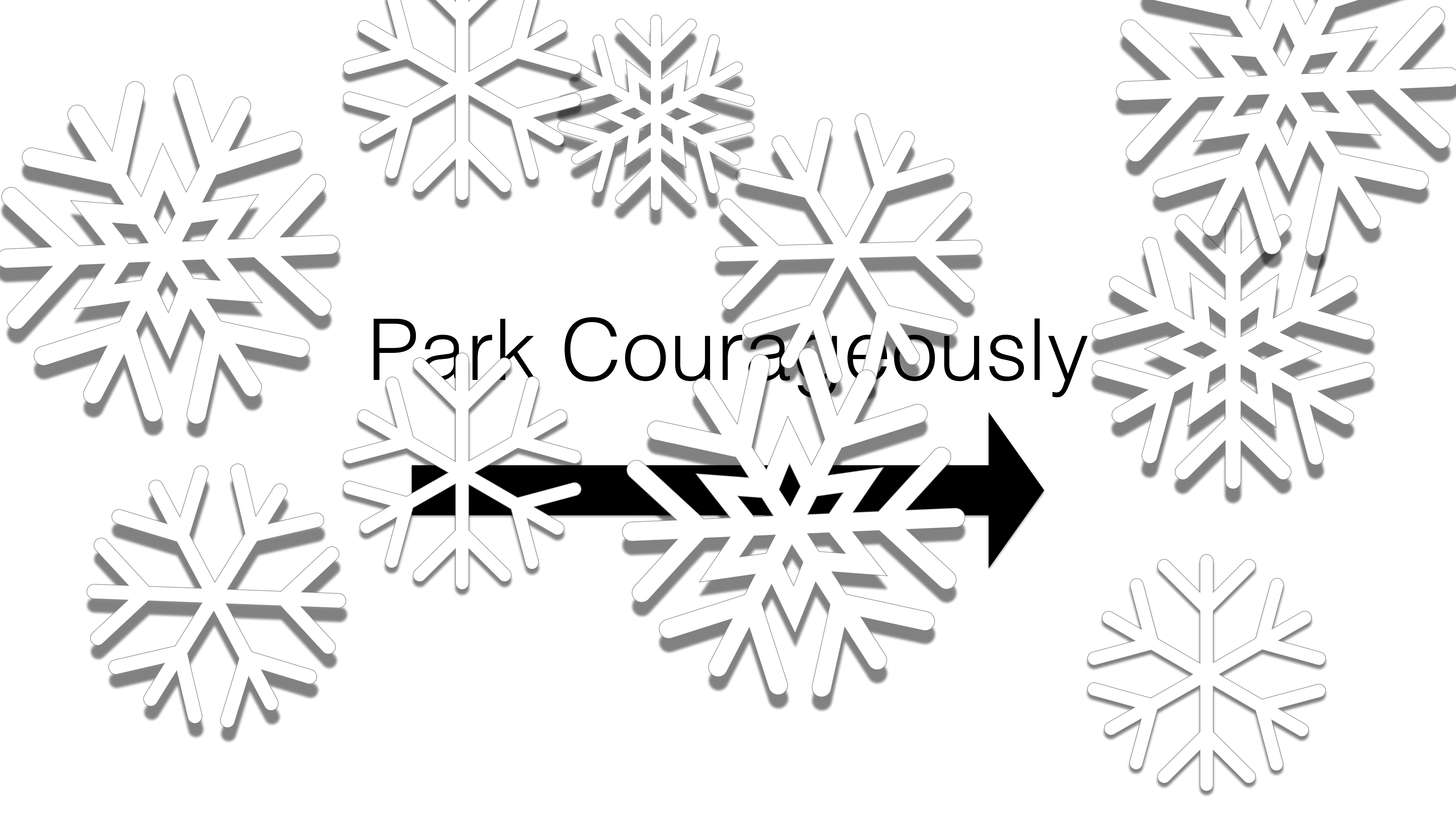


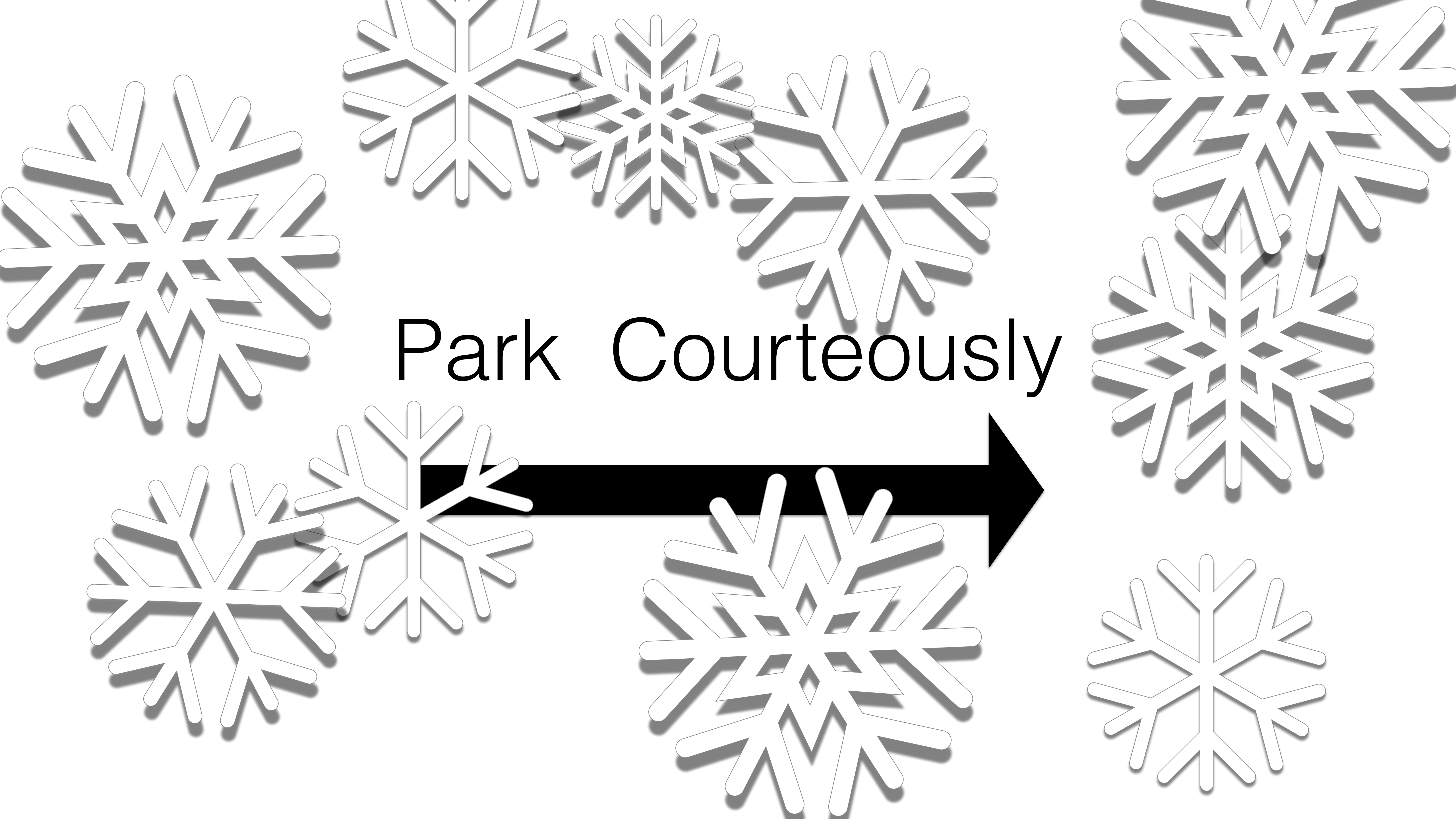
Continuous Delivery in Organizations that are Terrified of Risk

Mark Shead
Xeric Corporation
1 888 XERIC 10
mark.shead@xeric.net





Park Courageously



Park Courteously

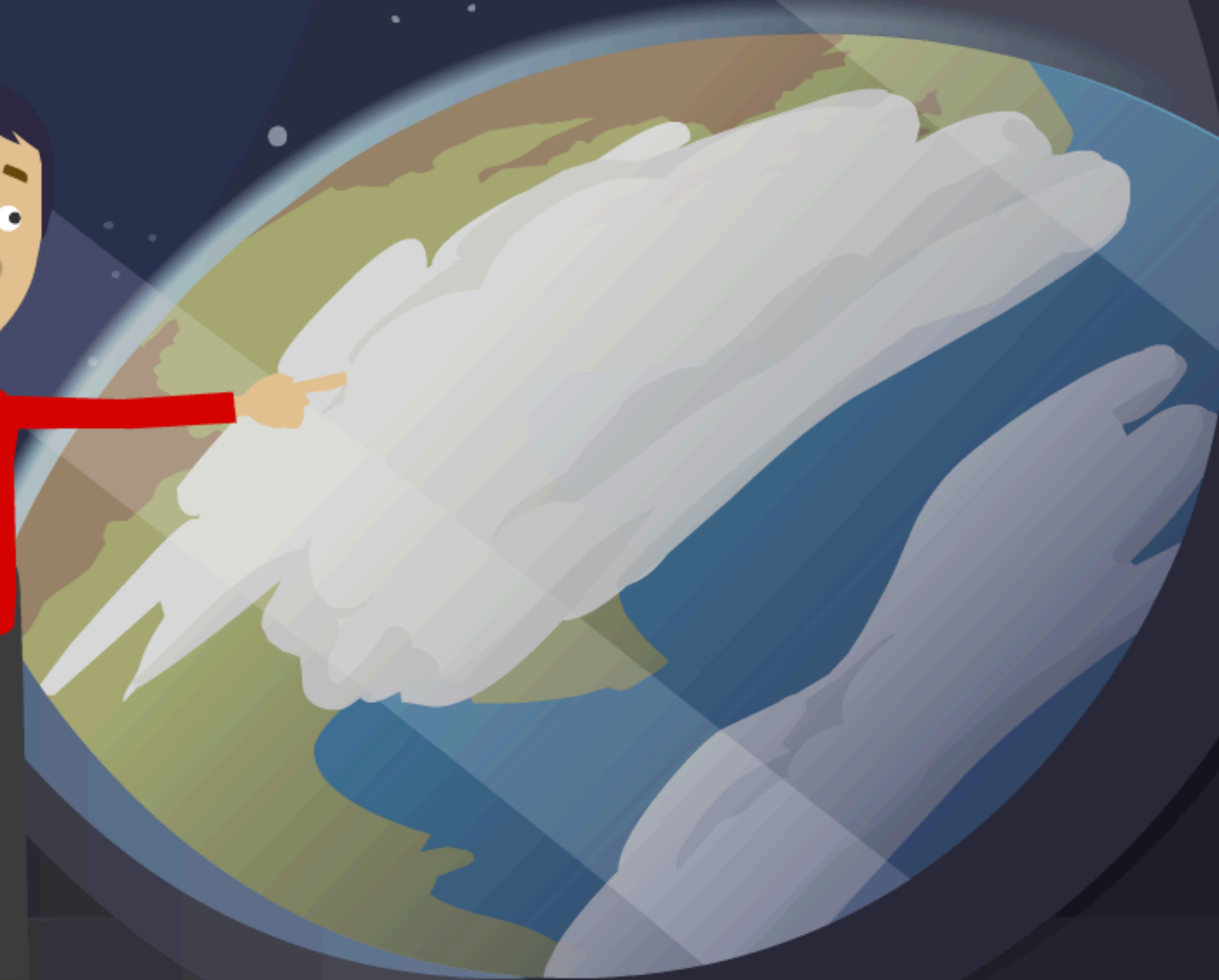
Deploy with Courage

Courageous \neq Reckless

Continuous Delivery in Organizations that are Terrified of Risk

Mark Shead
Xeric Corporation
1 888 XERIC 10
mark.shead@xeric.net

Is this the future?



Treasury

6 Month Deployment
vs.
7 Day Deployment

Lower Risk

Sell Lower Risk to Change
Management

Risk

Changes to Application

Development Risk

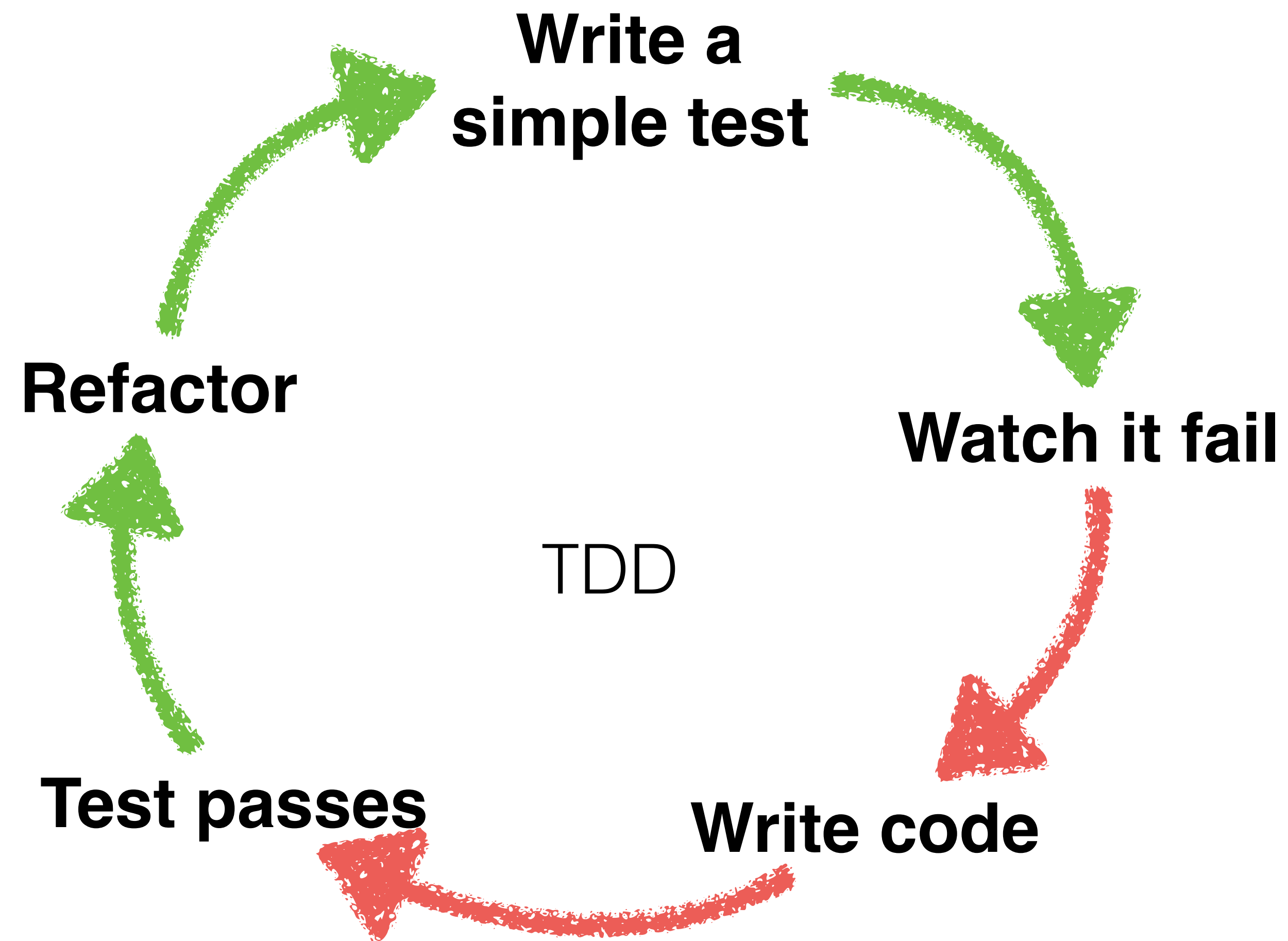
Changes to Environment

Deployment Risk

Mitigating Risk

Mitigating Development Risk

Test Driven Development



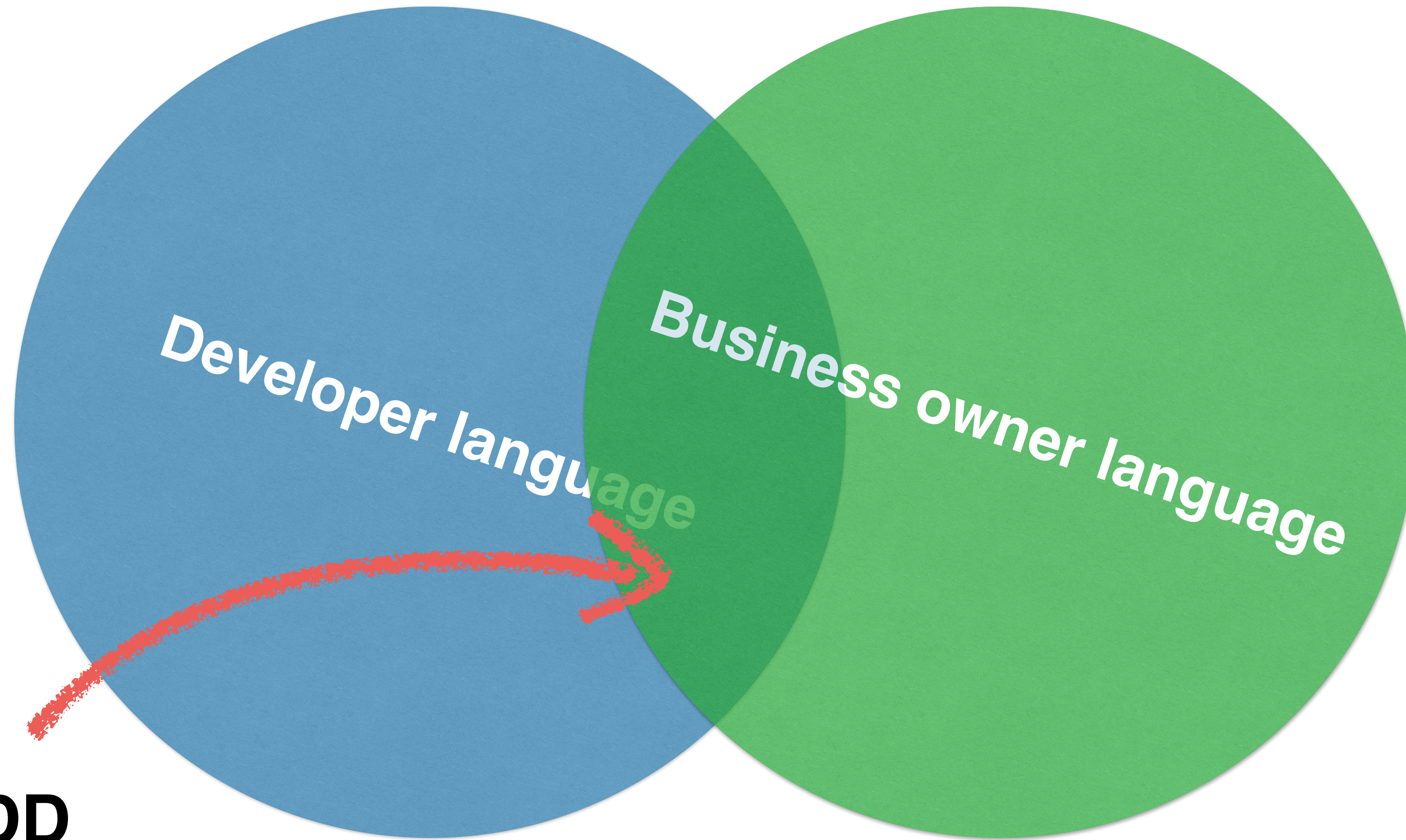
Behavior Driven Development

A solid blue circle with a slight drop shadow.

Developer language

A solid green circle with a slight drop shadow.

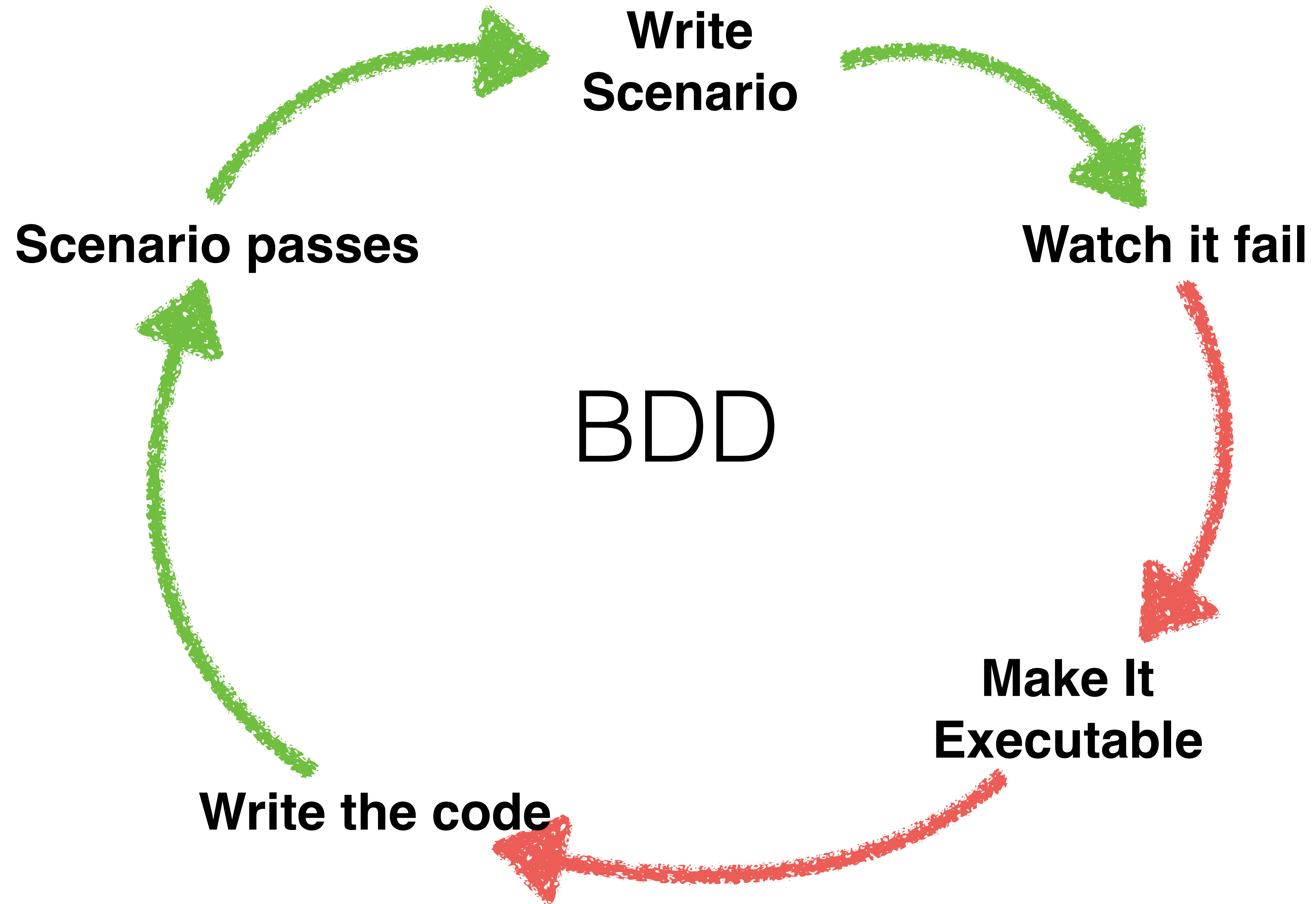
Business owner language

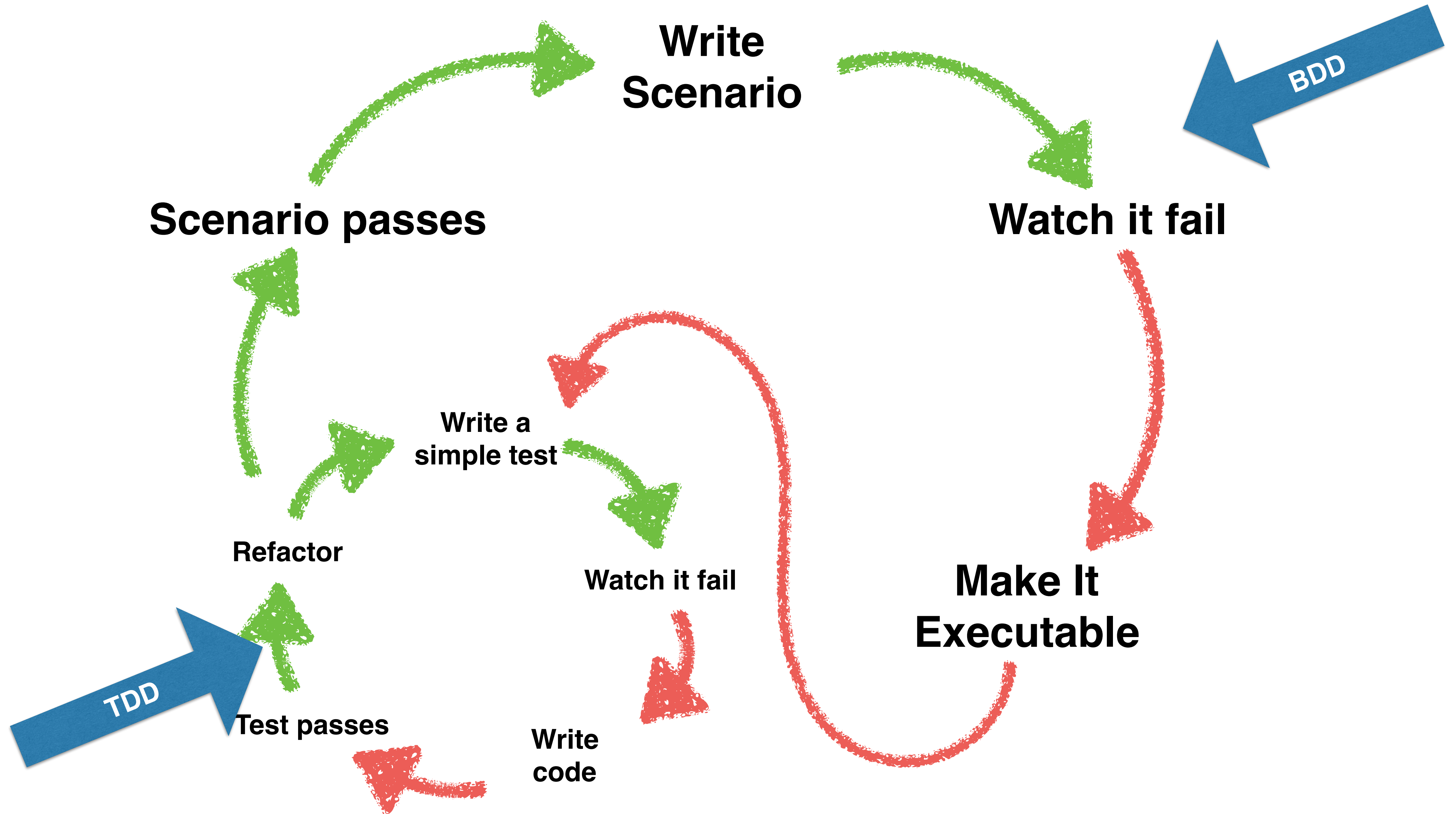


**BDD
Language**

Given I am not an admin user
When I login to the system
Then I cannot see the admin menu

Given I am an admin user
When I login to the system
Then I can see the admin menu





TDD/BDD and Risk

Communication

Building What The Customer
Actually Wants

Regression Tests

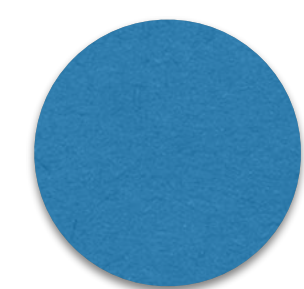
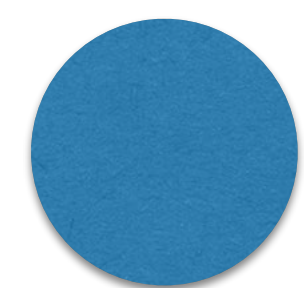
Continuous Integration

Version Control

Visibility

Very Small Changes

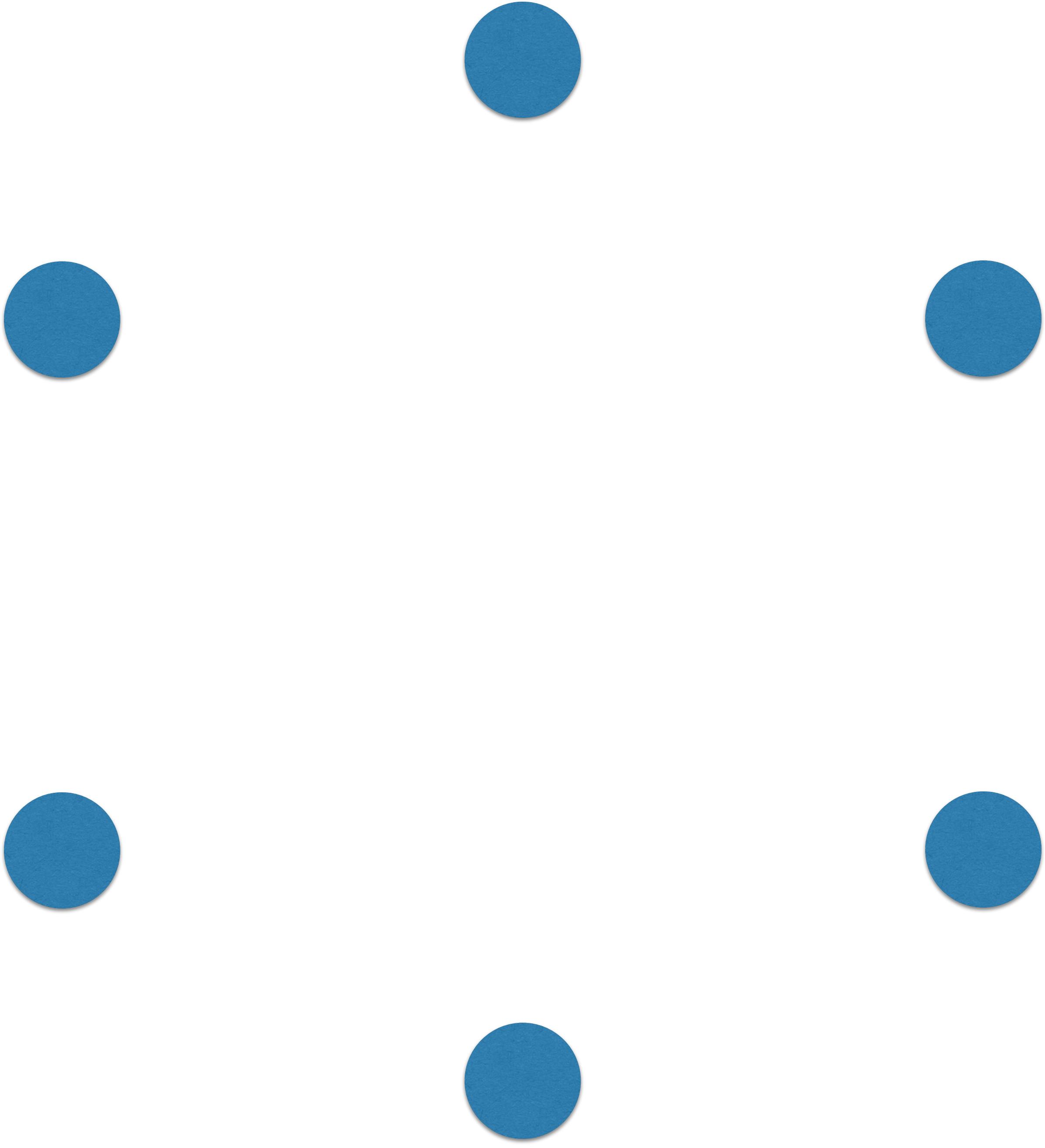
Changes: 2



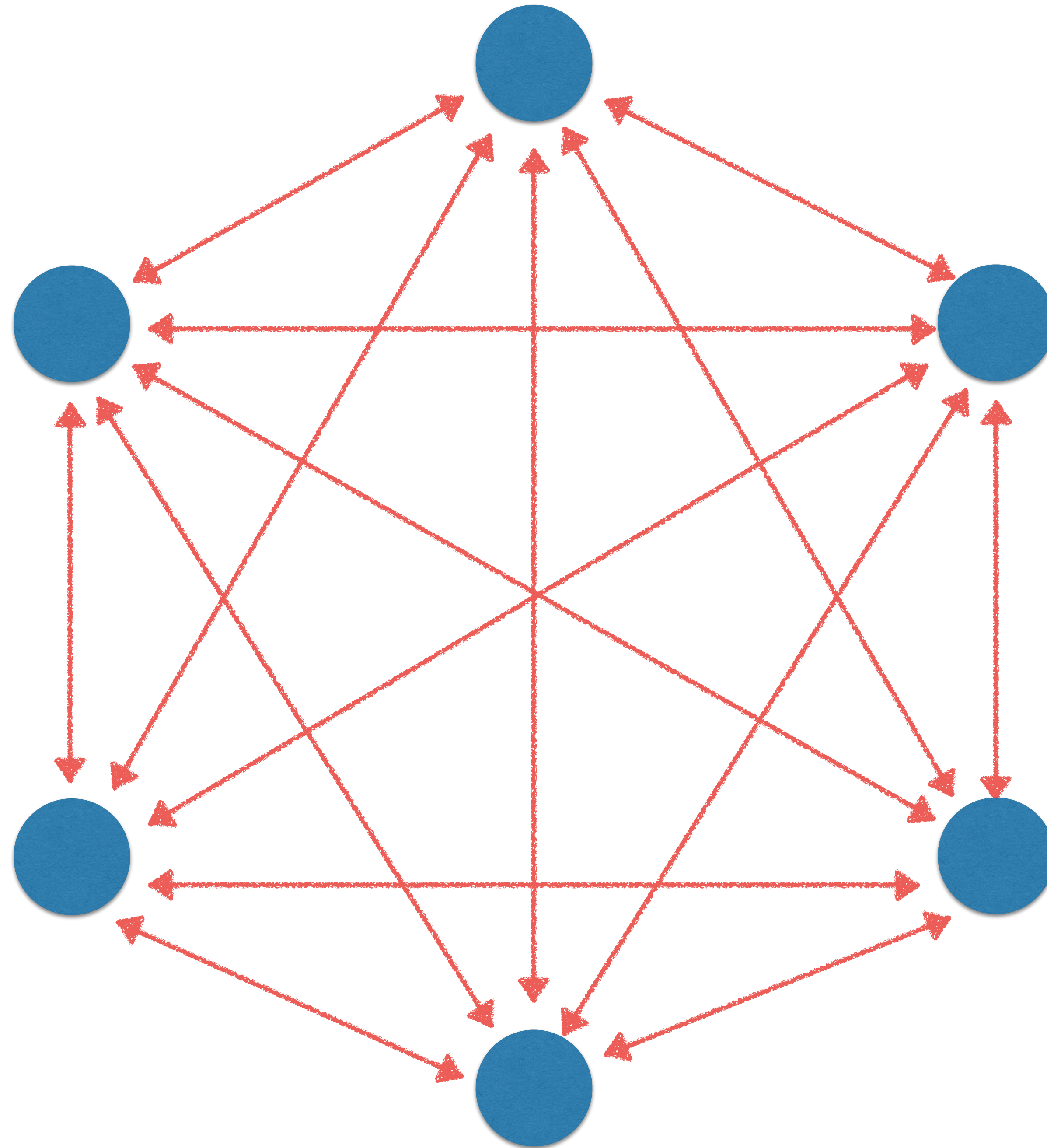
Changes: 2
Interactions: 2



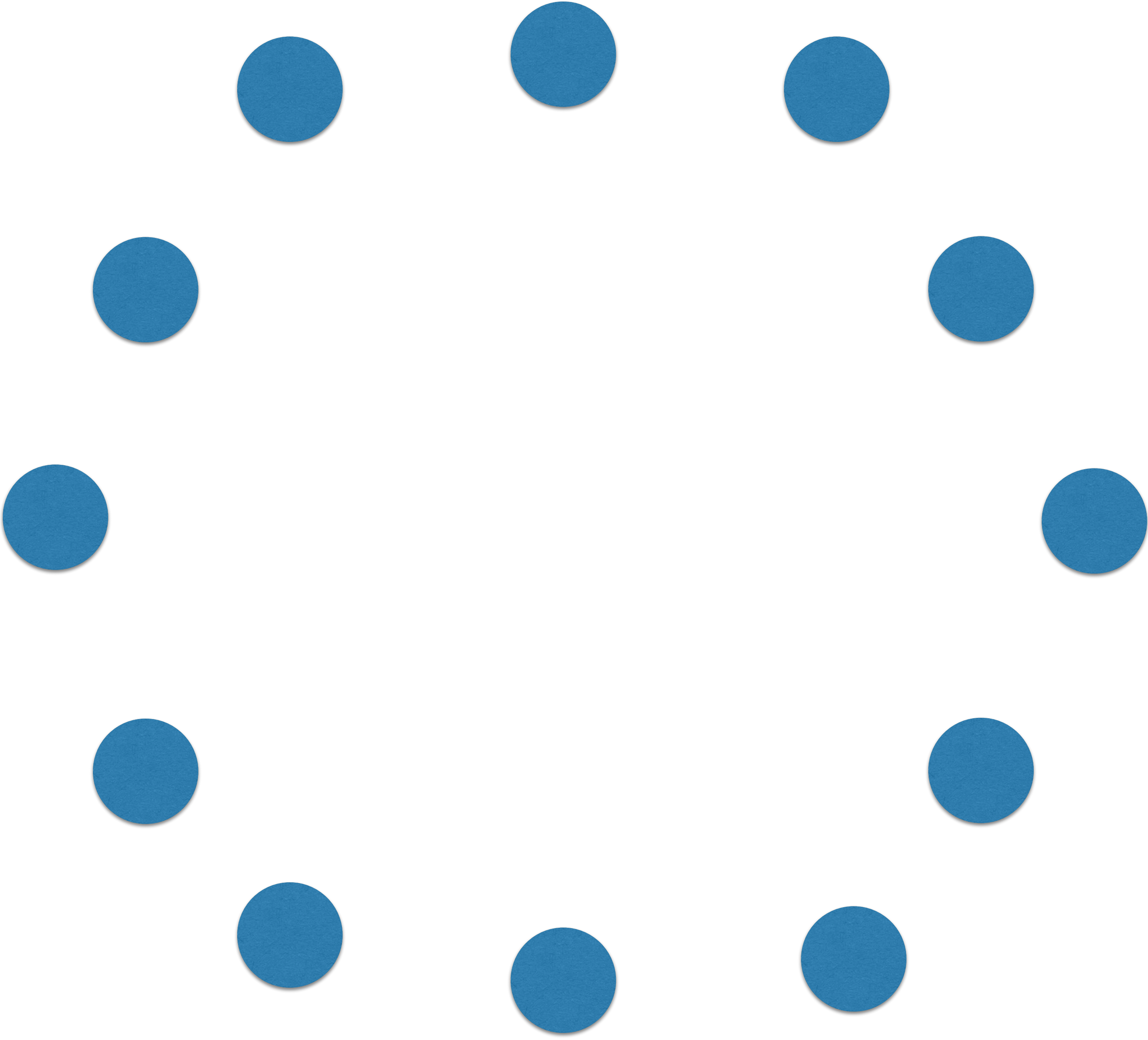
Changes: 6



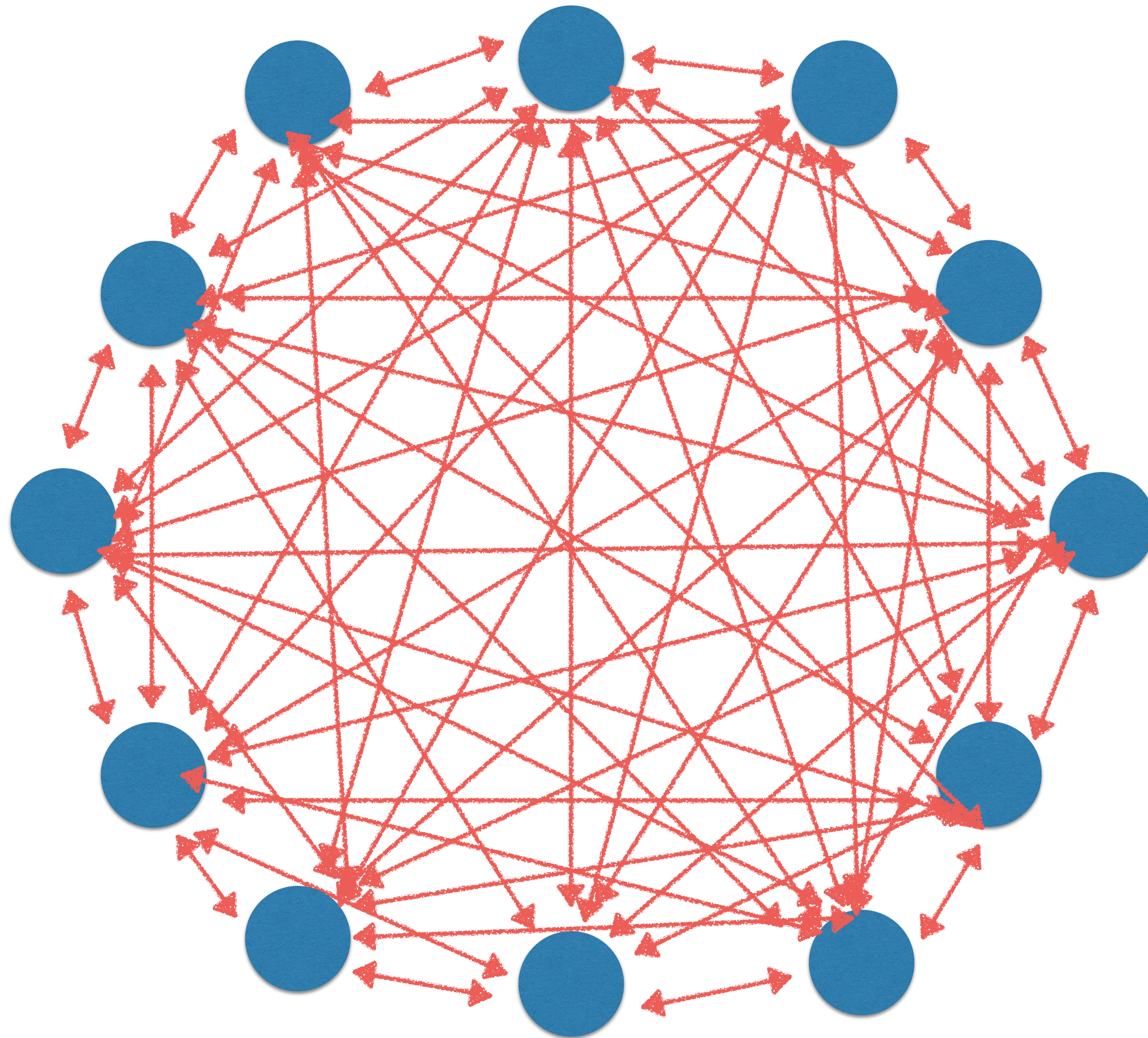
Changes: 6
Interactions: 30

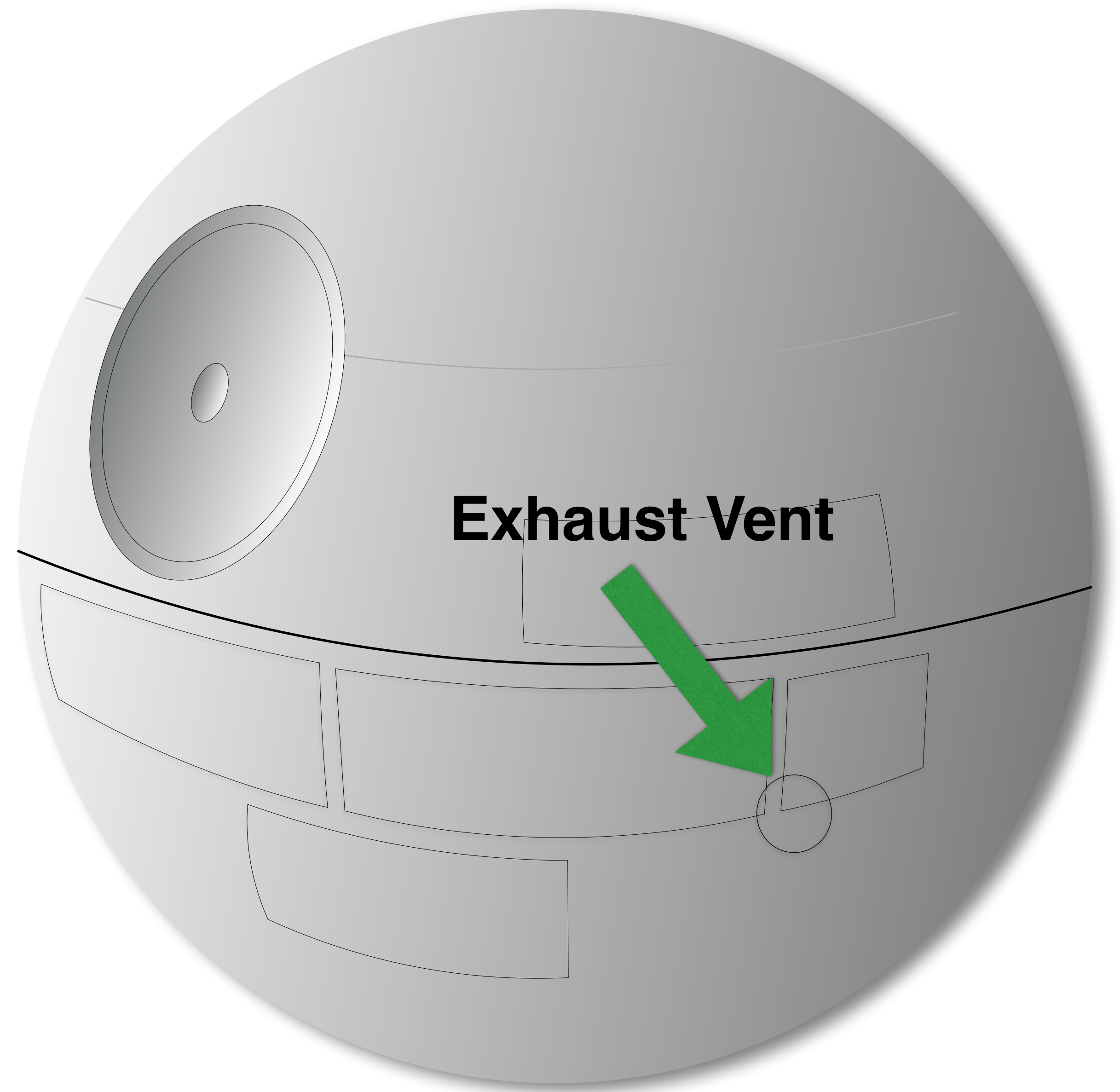
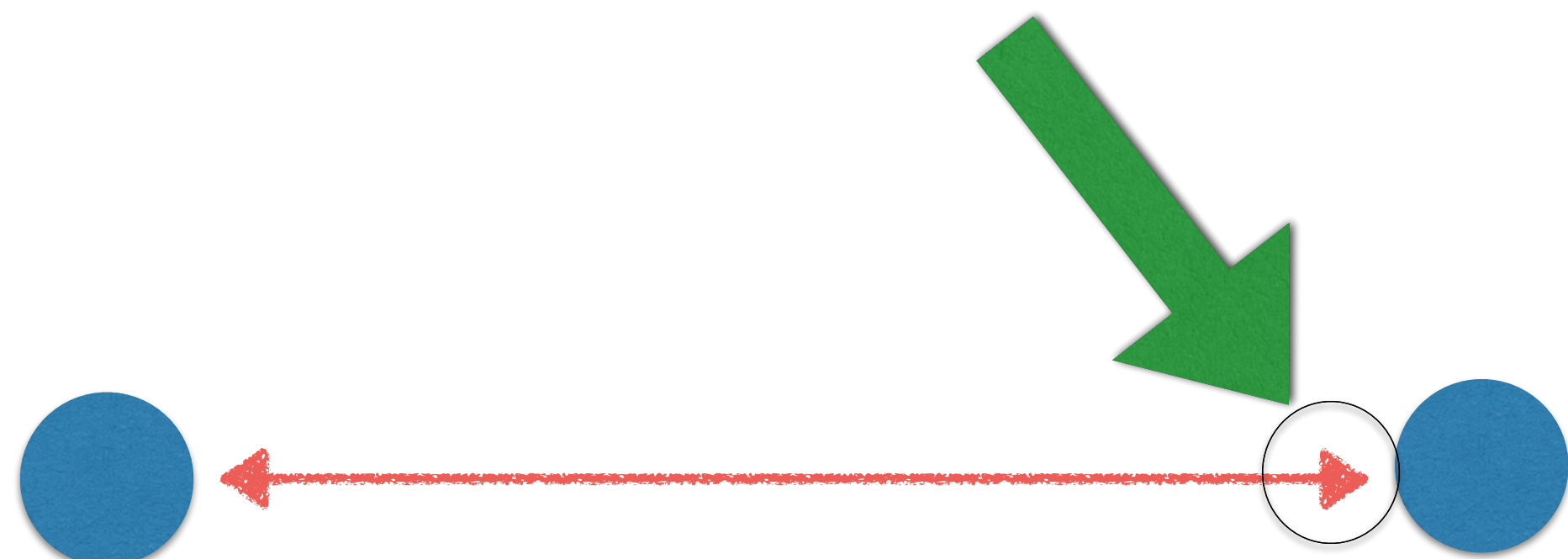


Changes: 12

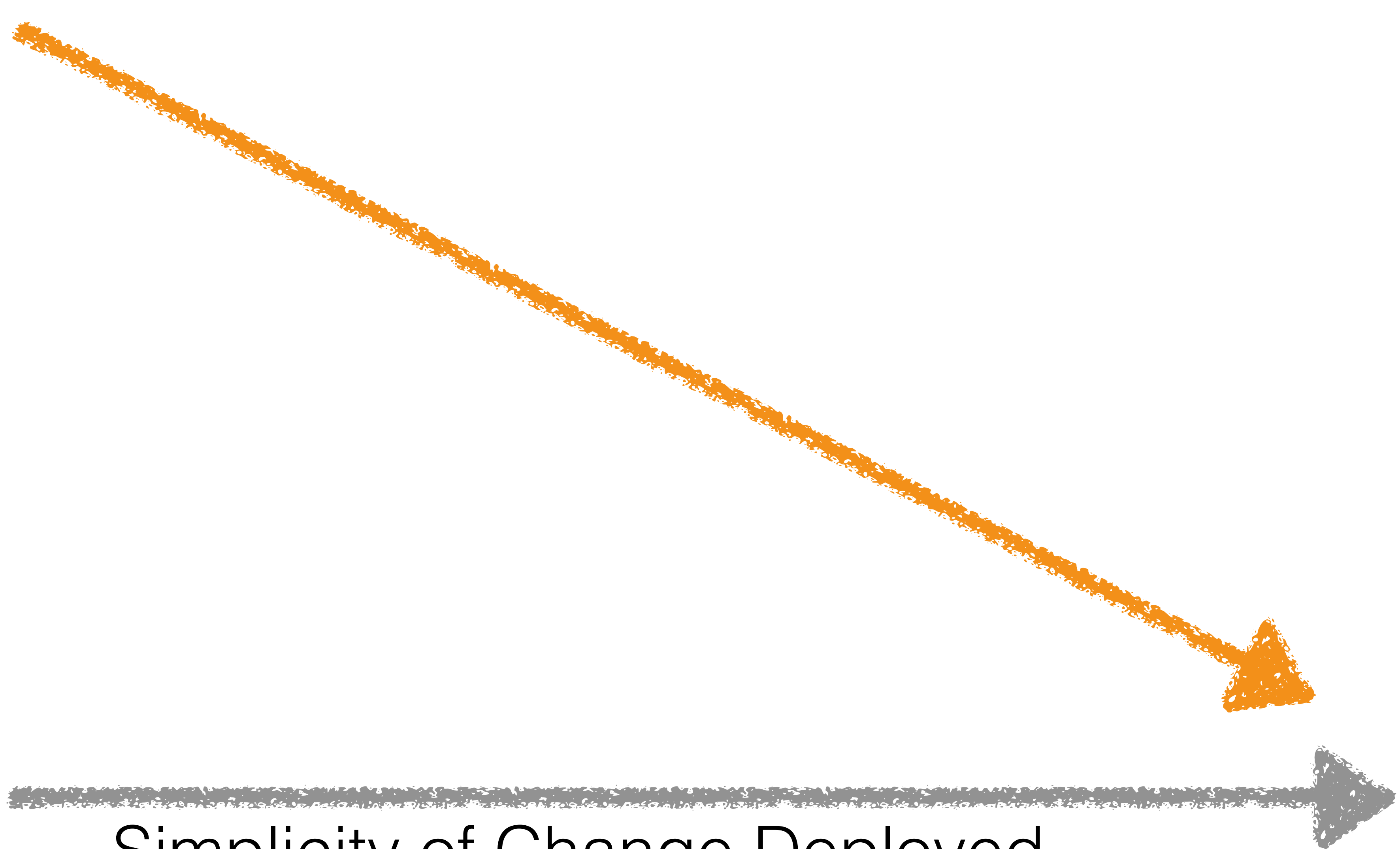


Changes: 12
Interactions: 132





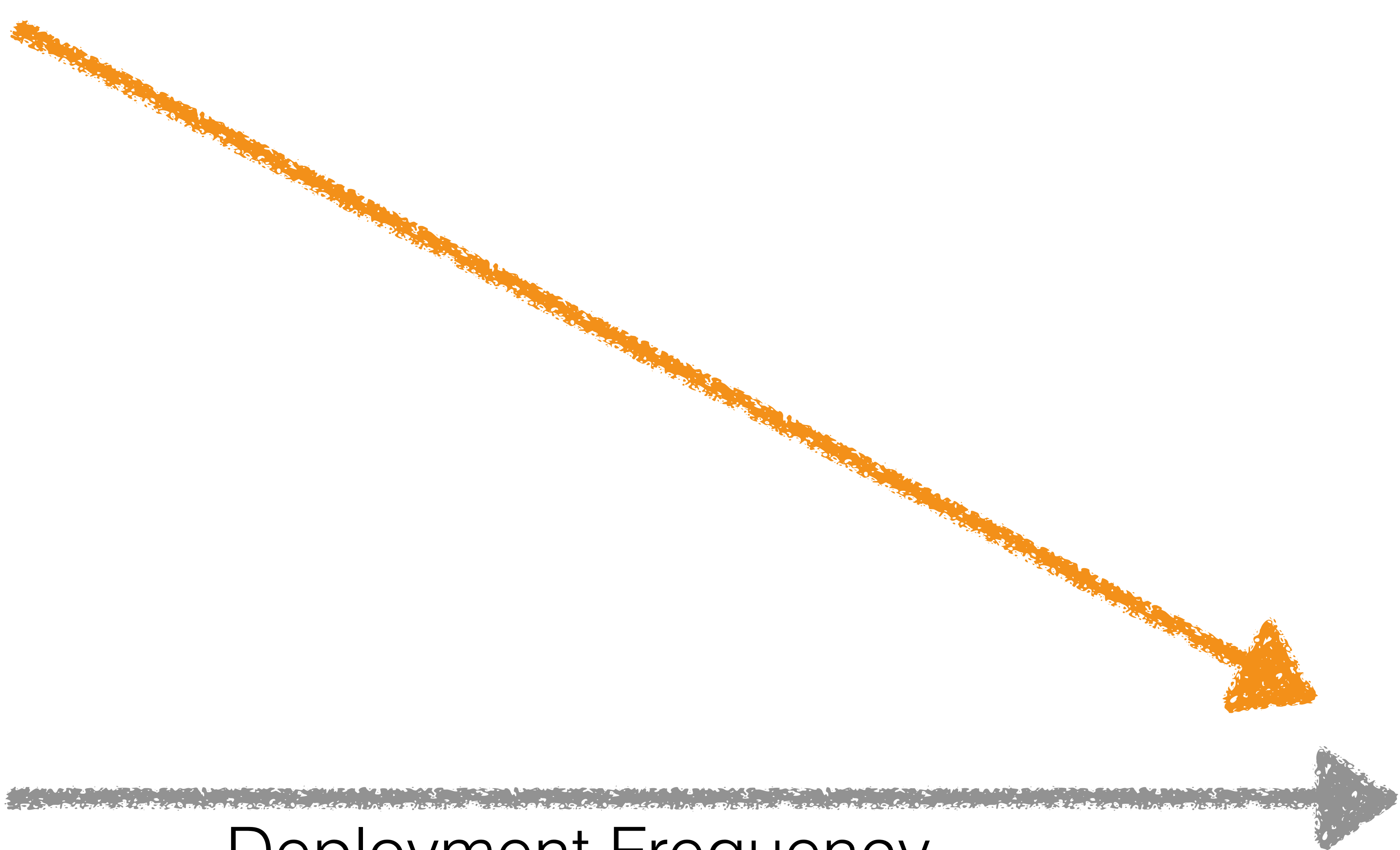
Risk



Simplicity of Change Deployed

Risk

Deployment Frequency



Continuous Delivery

Continuous Delivery

Continuous Deployment

Rapid & Safe Delivery of Value

**Build Automation
Continuous Integration**

**Behavior Driven Development
Test Driven Development**

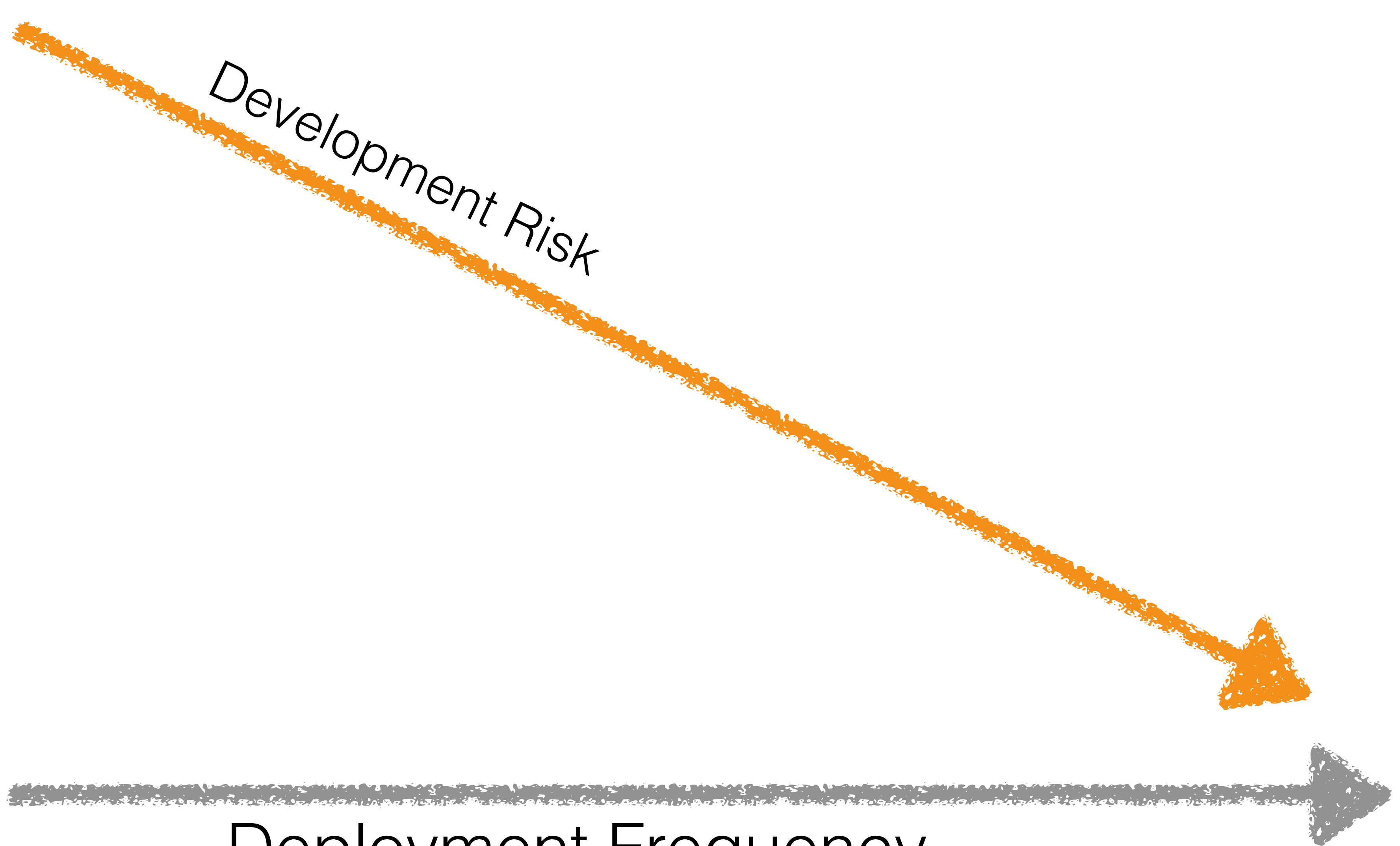
**Story Creation & Sizing
Small Changes**

Basic Agile Values and Principles

Risk

Development Risk

Deployment Frequency

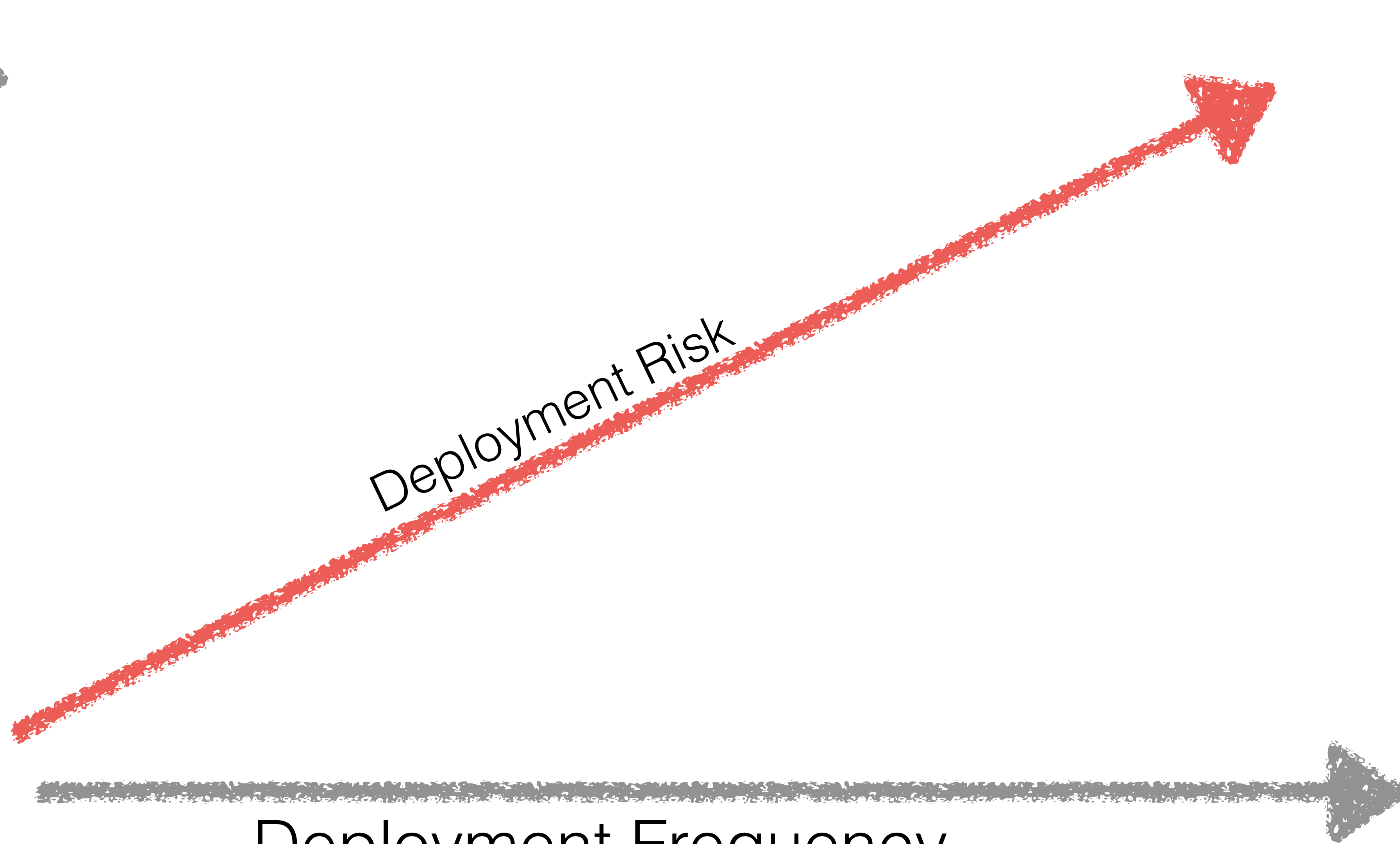


Mitigating Deployment Risk

Risk

Deployment Risk

Deployment Frequency

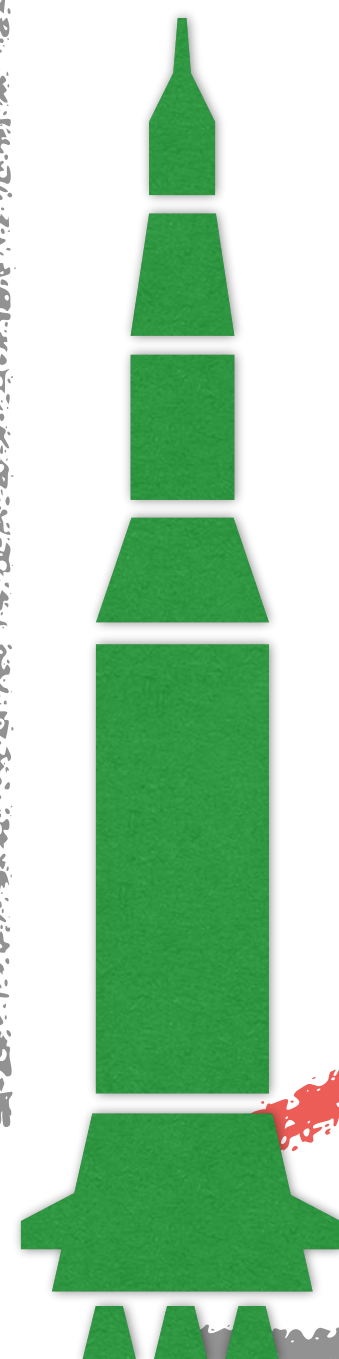




Anomaly

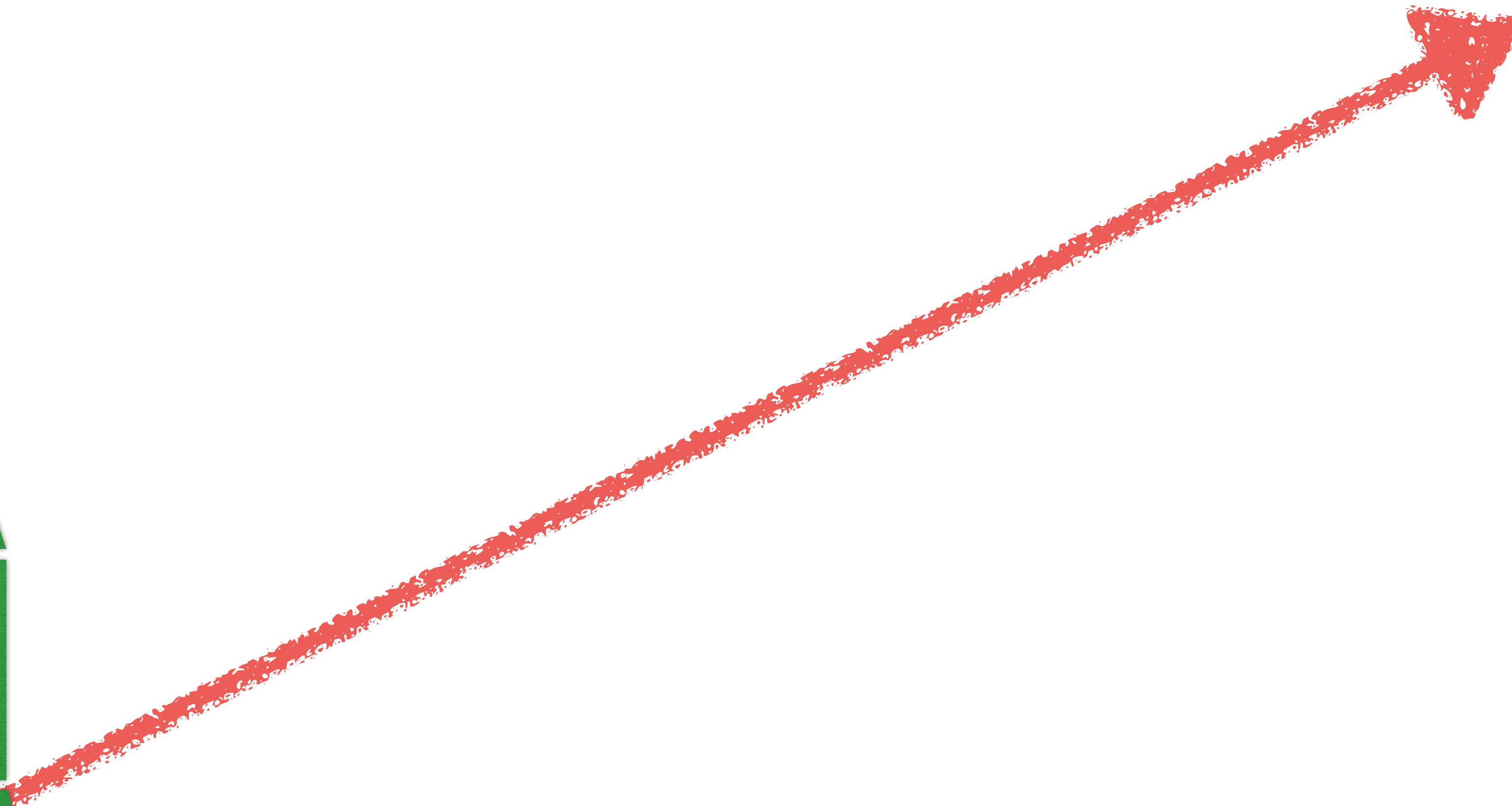
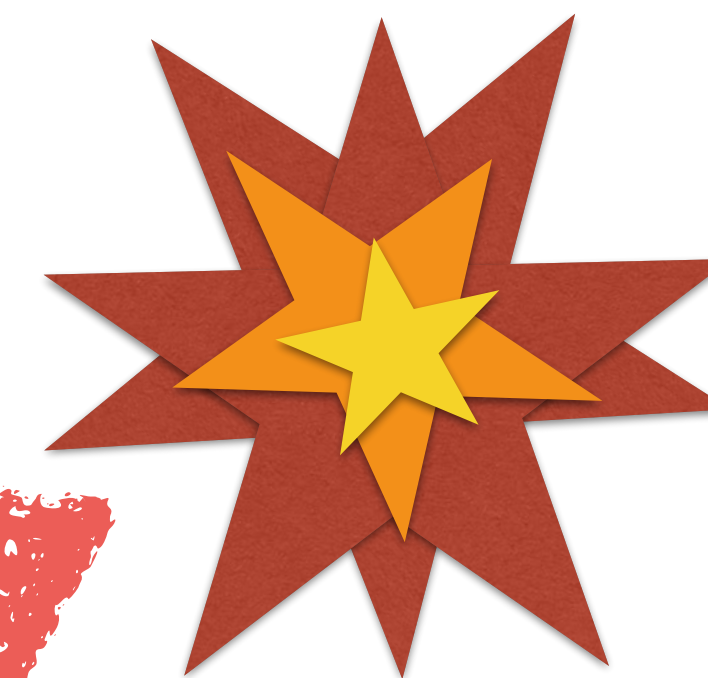
Catastrophic Anomaly

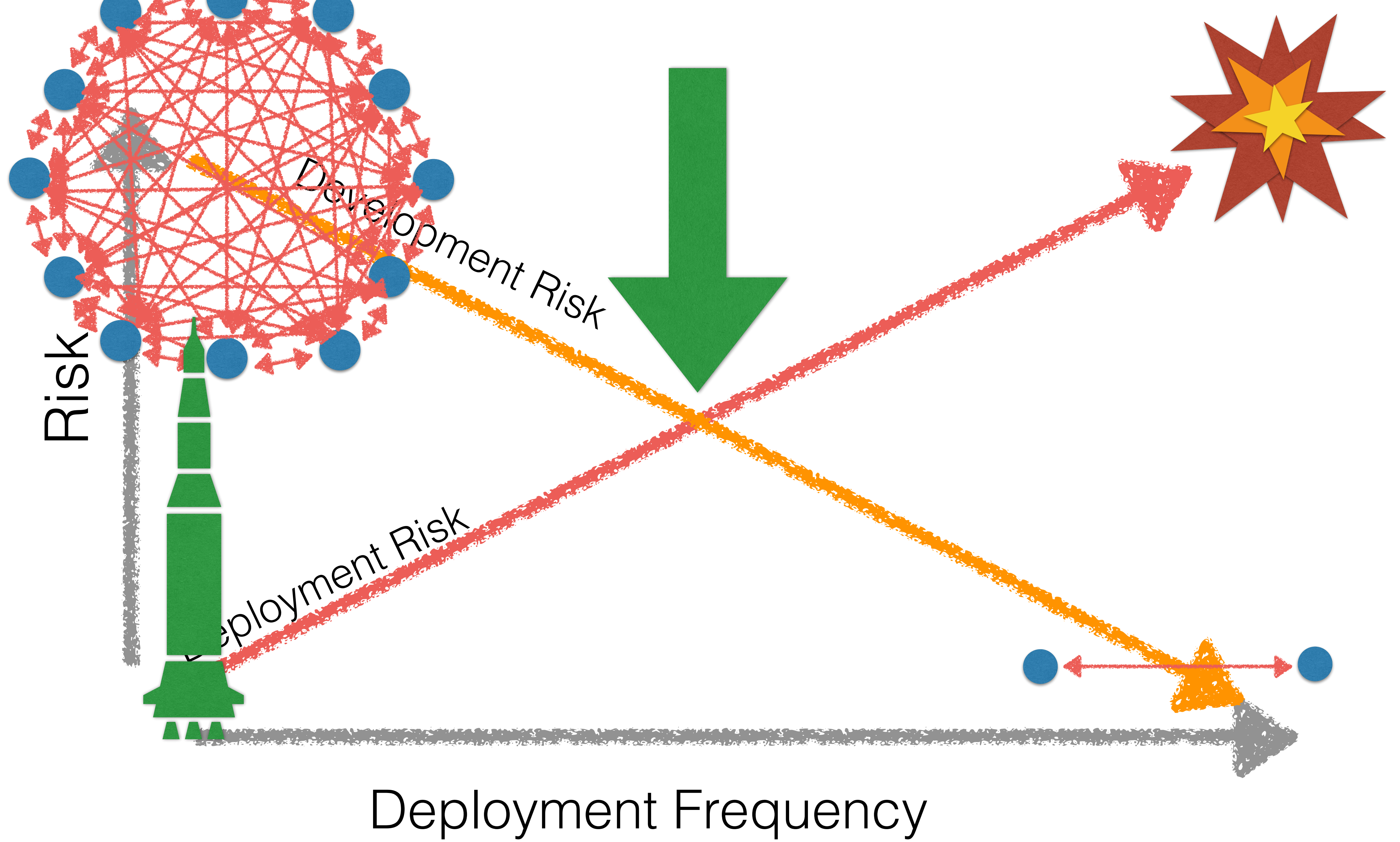
Risk

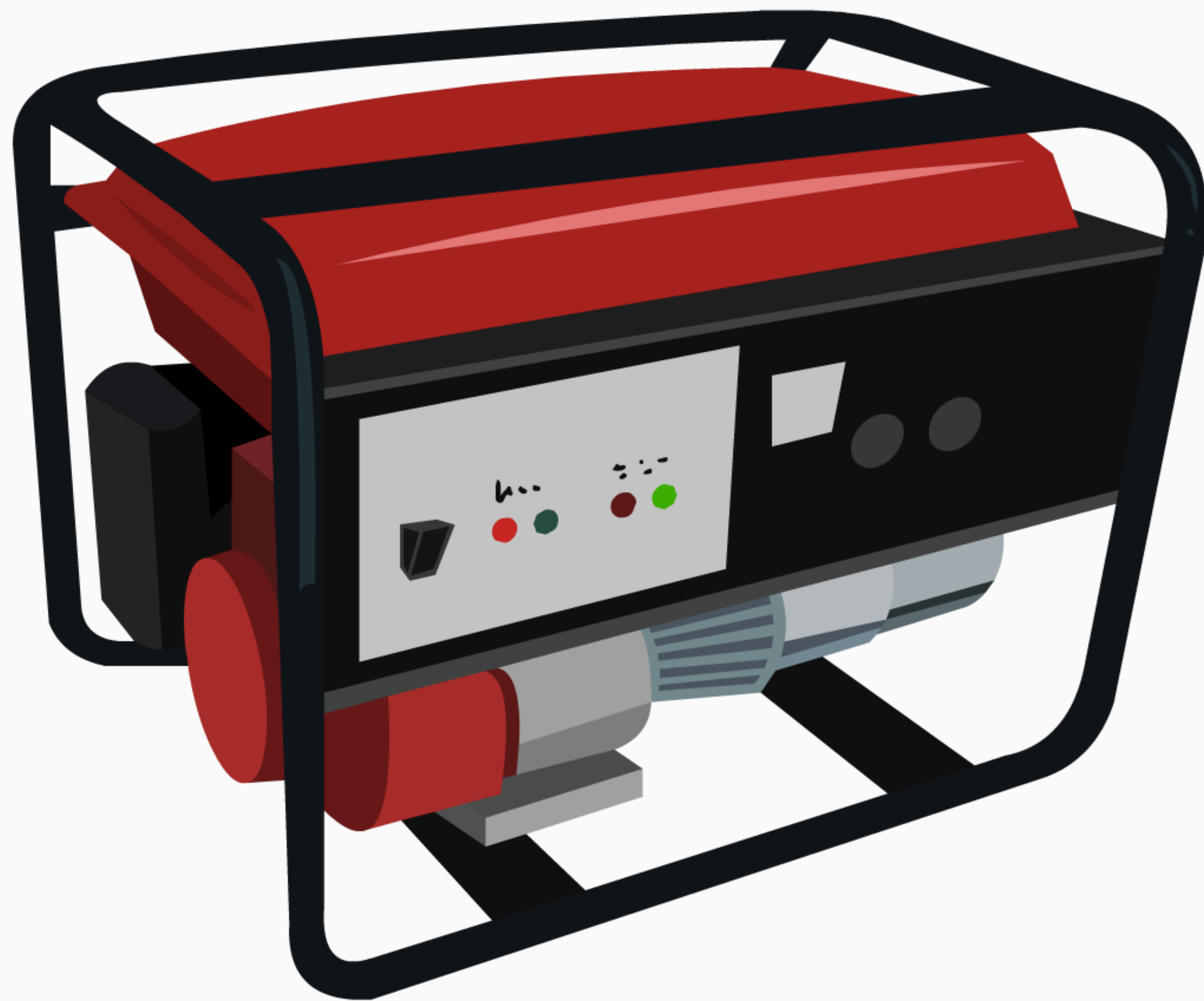


Deployment Frequency

Catastrophic Anomaly





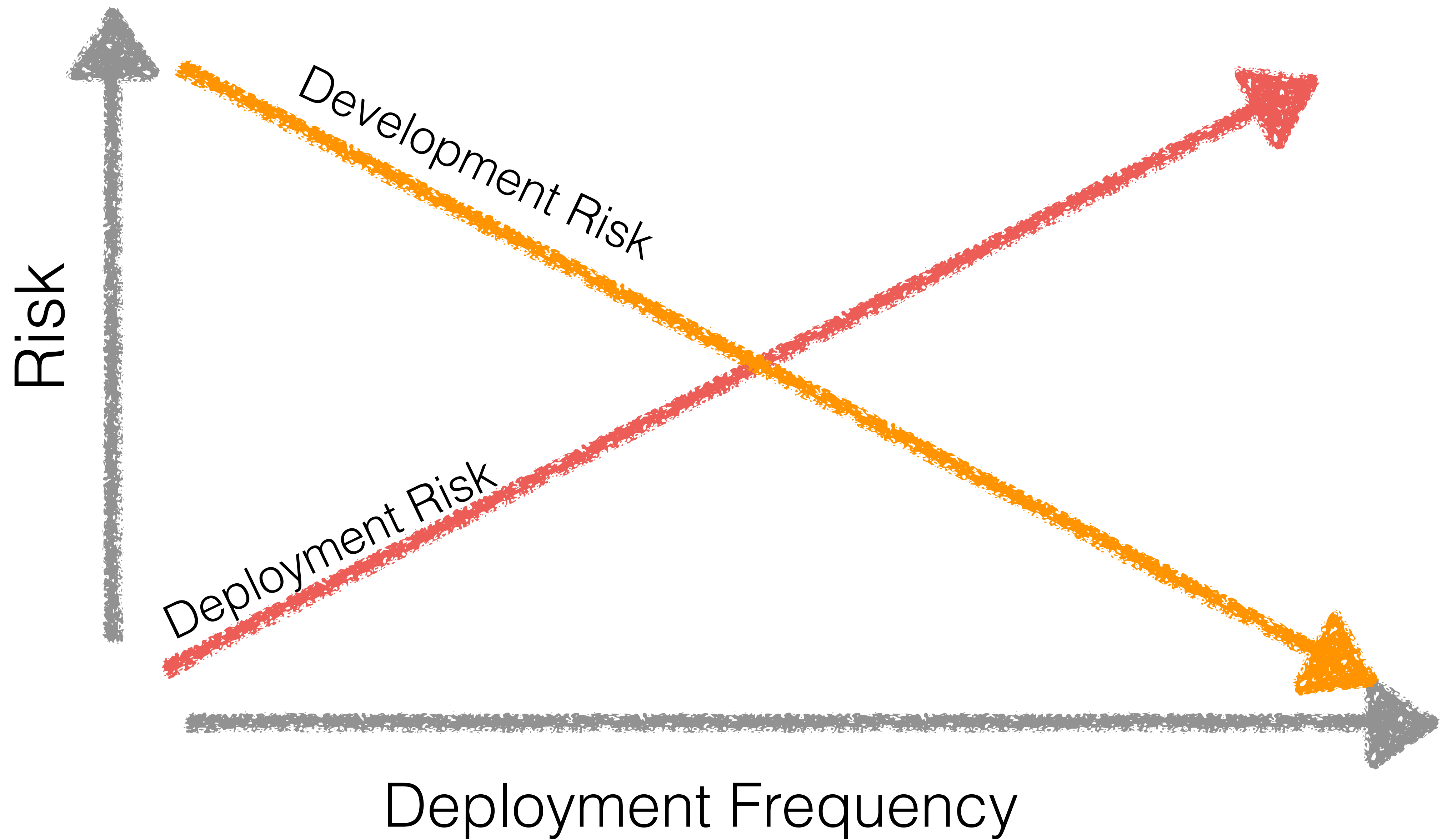


Automation

Not Just The Possibility

Actually Do It

Space X



The Hard Part

Selling to Change Management

Controls are your friend

Controls are your friend

Culture is not



Familiar \neq Low Risk

Controls are your friend

“The Way We’ve Always Done It”
is not

Education

Git Classes

Version Control

Chef Classes

DevOps

Flyway Classes

Automatic Schema Upgrade Tool

Code Analysis

Sonar

Fortify

CAST

Reputation in Government

Overall Trends

Benchmarking

Political Value

DevOps

Audit Control

Traceability Control

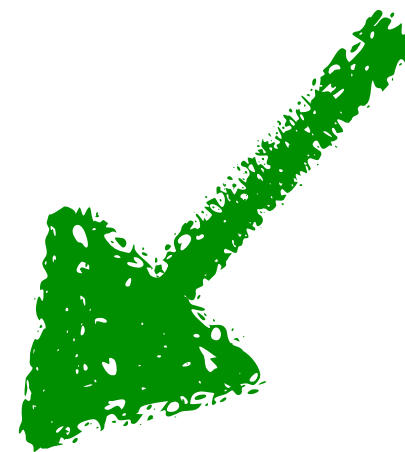
Rapid Deployment

Standard Change

Small Number of Changes

x.y.z

x.y.z



2.0.10

2.0.11

2.0.10

2.0.11



2.0.10

2.1.1

2.0.10

2.1.1

2.0.2

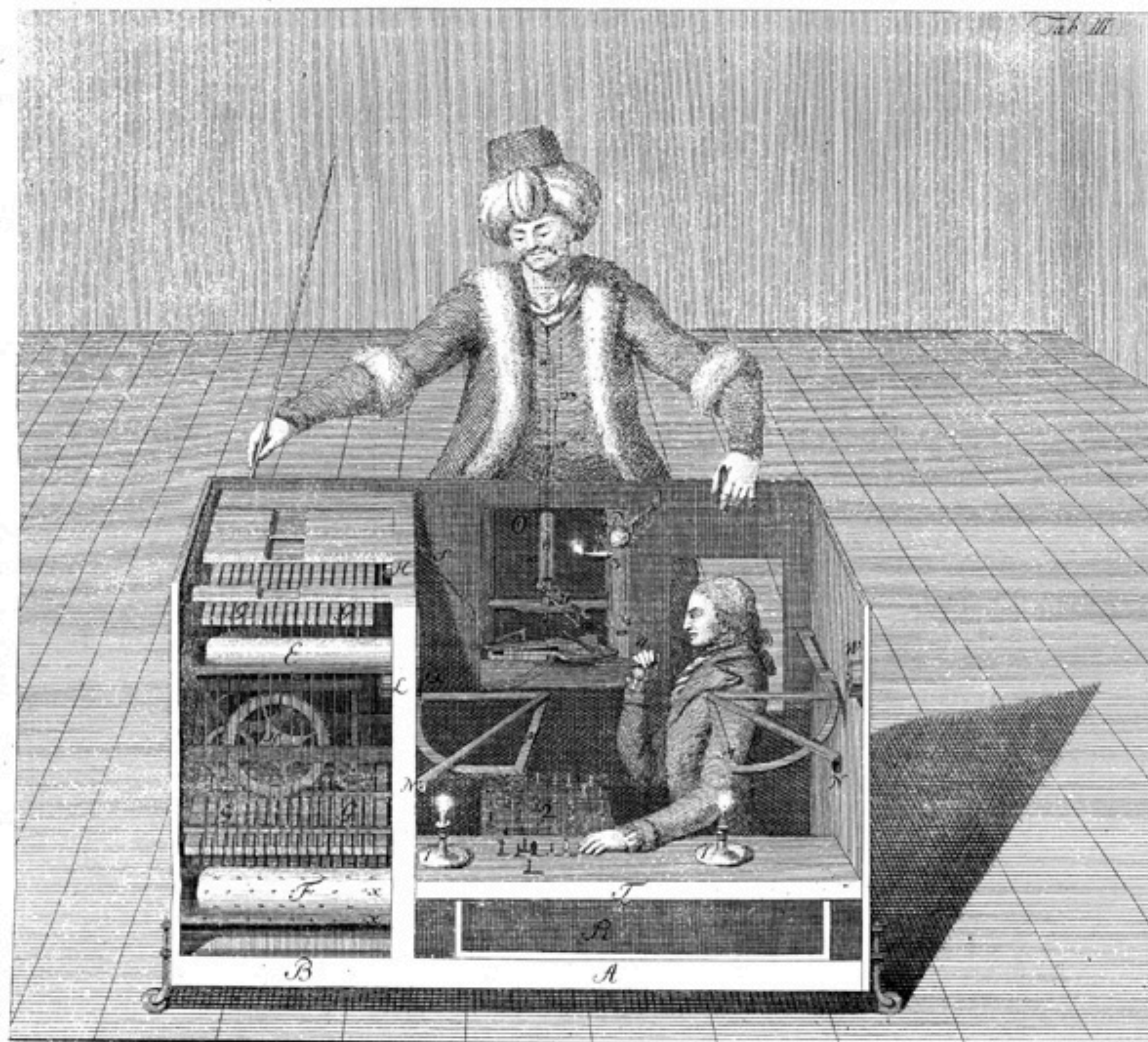
2.0.23

2.0.236

2.0.2367

Standup Meeting

JIRA



JIRA - Change Management API

Version Control

Value

Debt: John Smith 123-45-6789

Payment: John Smith 123-45-6789

\$200,000

\$200,000

per week

○ Slow Deployment

○ Rapid Deployment

6000000

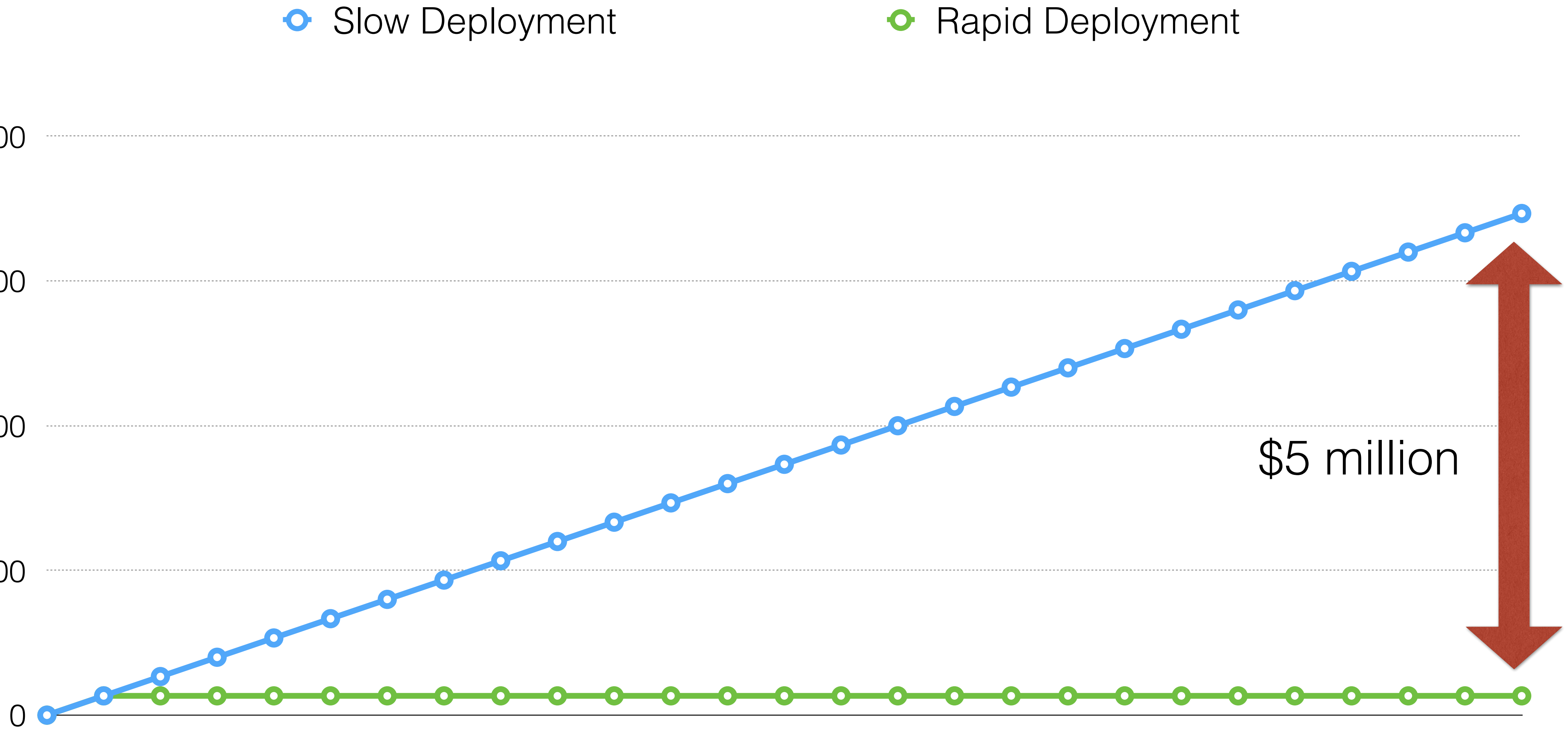
4500000

3000000

1500000

0

\$5 million



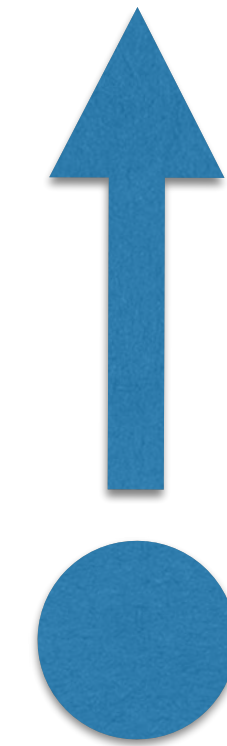
How much does **rapid**
deployment cost?

How much does **slow**
deployment cost?

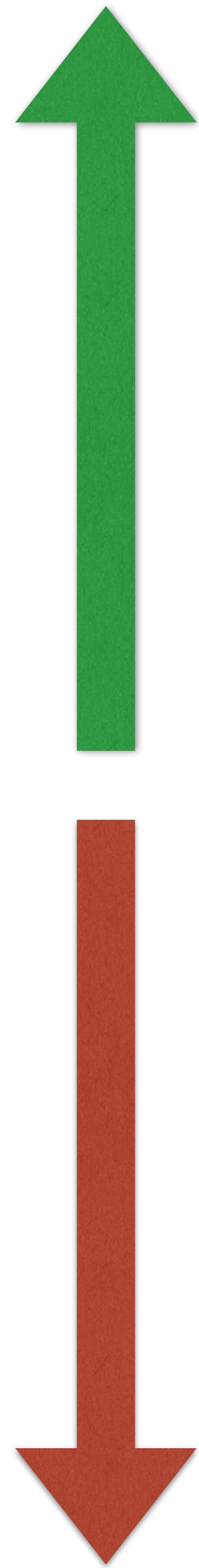
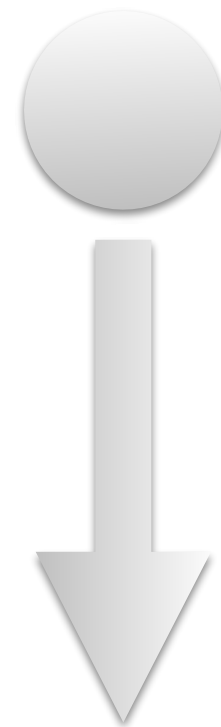
Why doesn't this happen
naturally?

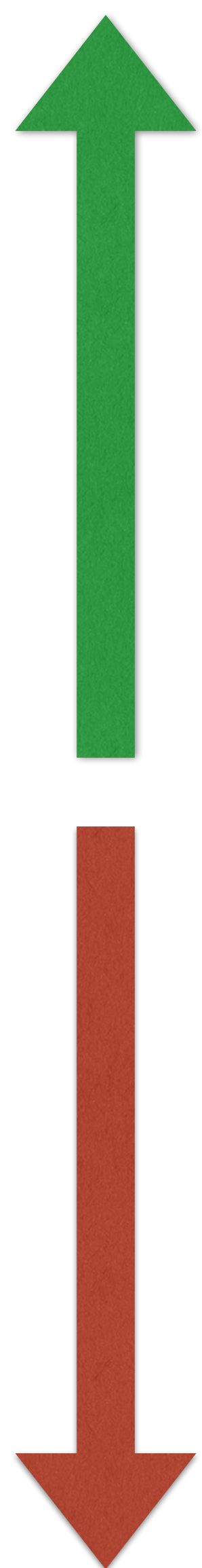
How does an organization react
to stress?

Automation



Manual Effort





Self-reinforcing



Leadership

Jonathan









Pirates' may lose some loot

► Nineteen students who sneaked into a Tulip Time march each face a \$100 fine.

John Agar
and Rapids Press

band of "pirates" who last week's Kinderparade with merry marauders to-

ce cited 19 teenagers of the "American" — for illegally a civil infrac-00 fine.

planned the they slipped time kids hat — a crowd teens





Get those kids!





'Pirates' hope to wash away fines from parade

H O L L A N D

By Kym Reinstadler
The Grand Rapids Press

Yo ho ho and a bucket of suds.

Twenty West Ottawa High School students were ticketed for crashing Tuesday's parade.

thoff said.

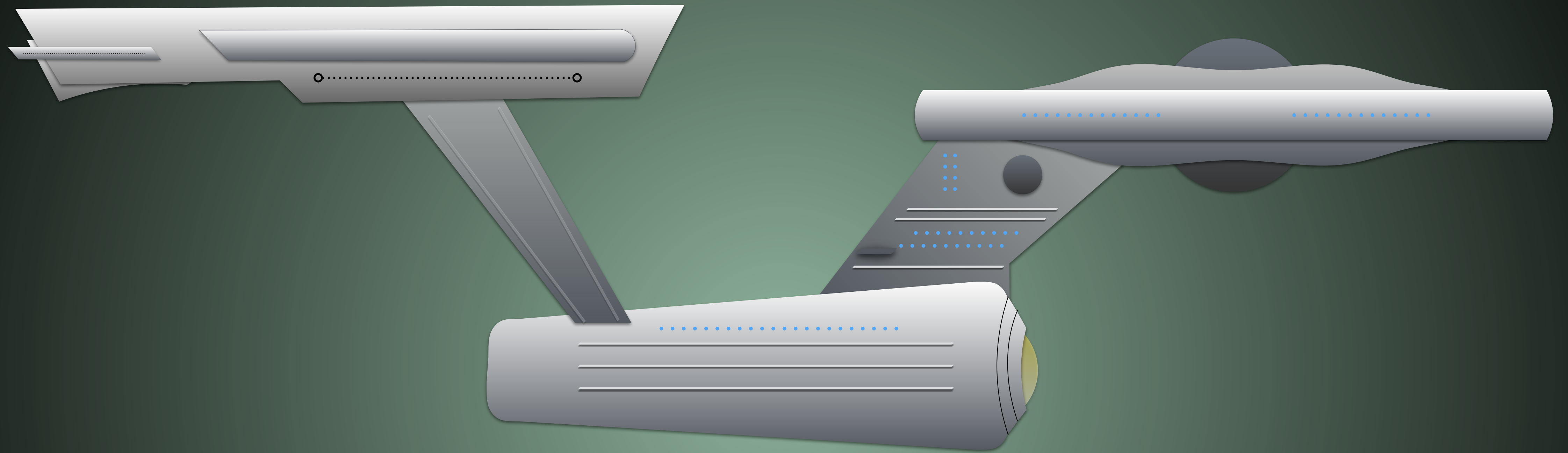
"I've heard from a lot of people who are very sympathetic," said Jonathan Fegel, who led the marauders as Calico Jack. "They realize it was not a malicious act."

West Ottawa High School Principal Jim Nicolette sent Fegel and one student home from school last Friday, handing out fliers at school seeking rate wannabees for the children's parade and a battle scene at Memorial Park.



Courage





Rapidly deploy where no one
has rapidly deployed before.

Links & Contact

- <http://www.youtube.com/markshead>
- <https://blogs.harvard.edu/markshead/>
- <https://www.linkedin.com/in/markshead>
- Twitter @MarkWShead
- Email: mark.shead@xeric.net