

ThoughtWorks®

House of DevOps

TRANSFORM THE INVISIBLE WALL

May Xu

Oct 2014

People are disturbed not by things, but by the view which they take of them.

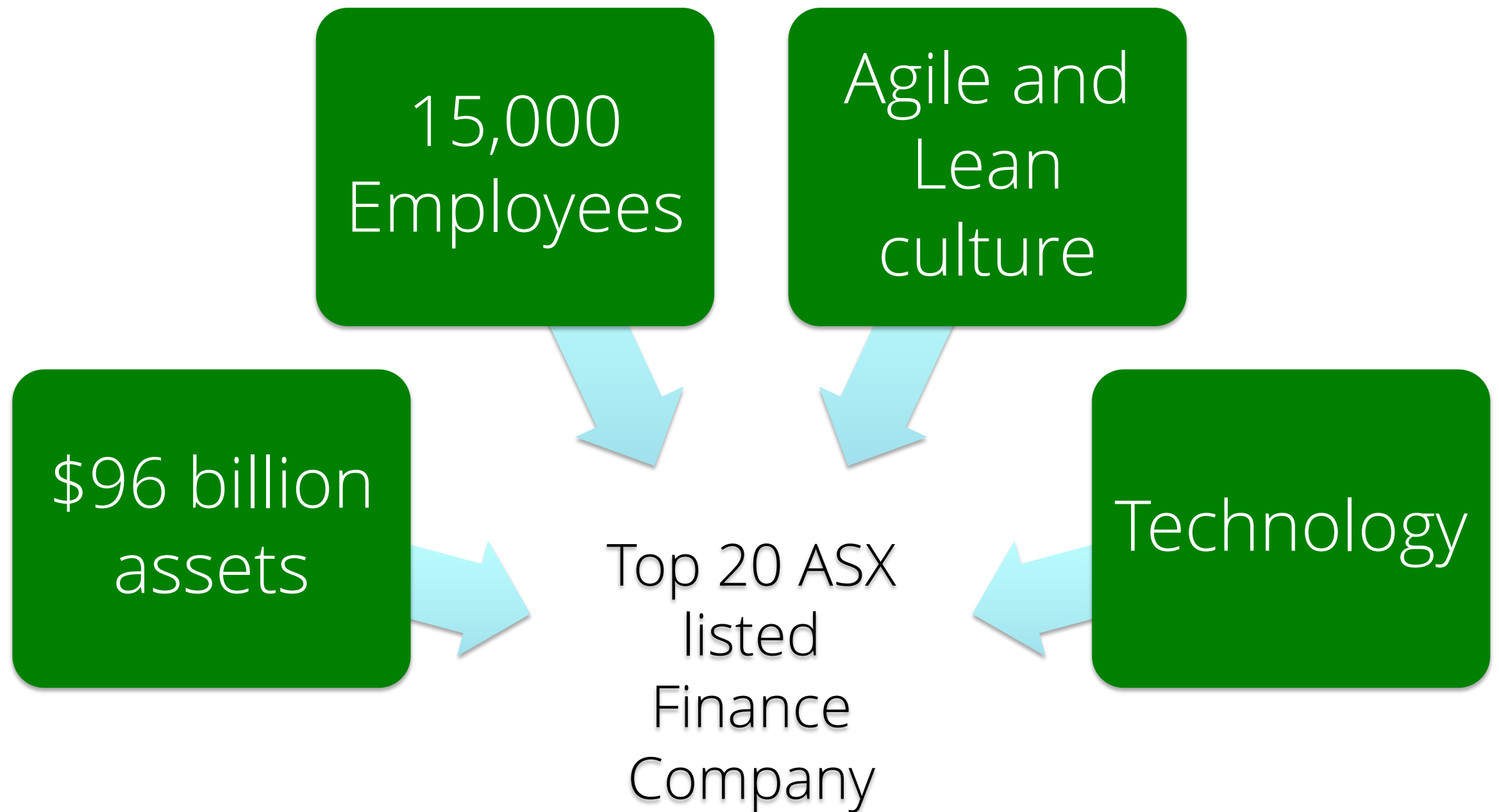
Epictetus



AGENDA

- ❑ Context
- ❑ What is DevOps
- ❑ Why adopt DevOps
- ❑ Build the house of DevOps in 4 steps
- ❑ The Journey
- ❑ Summary

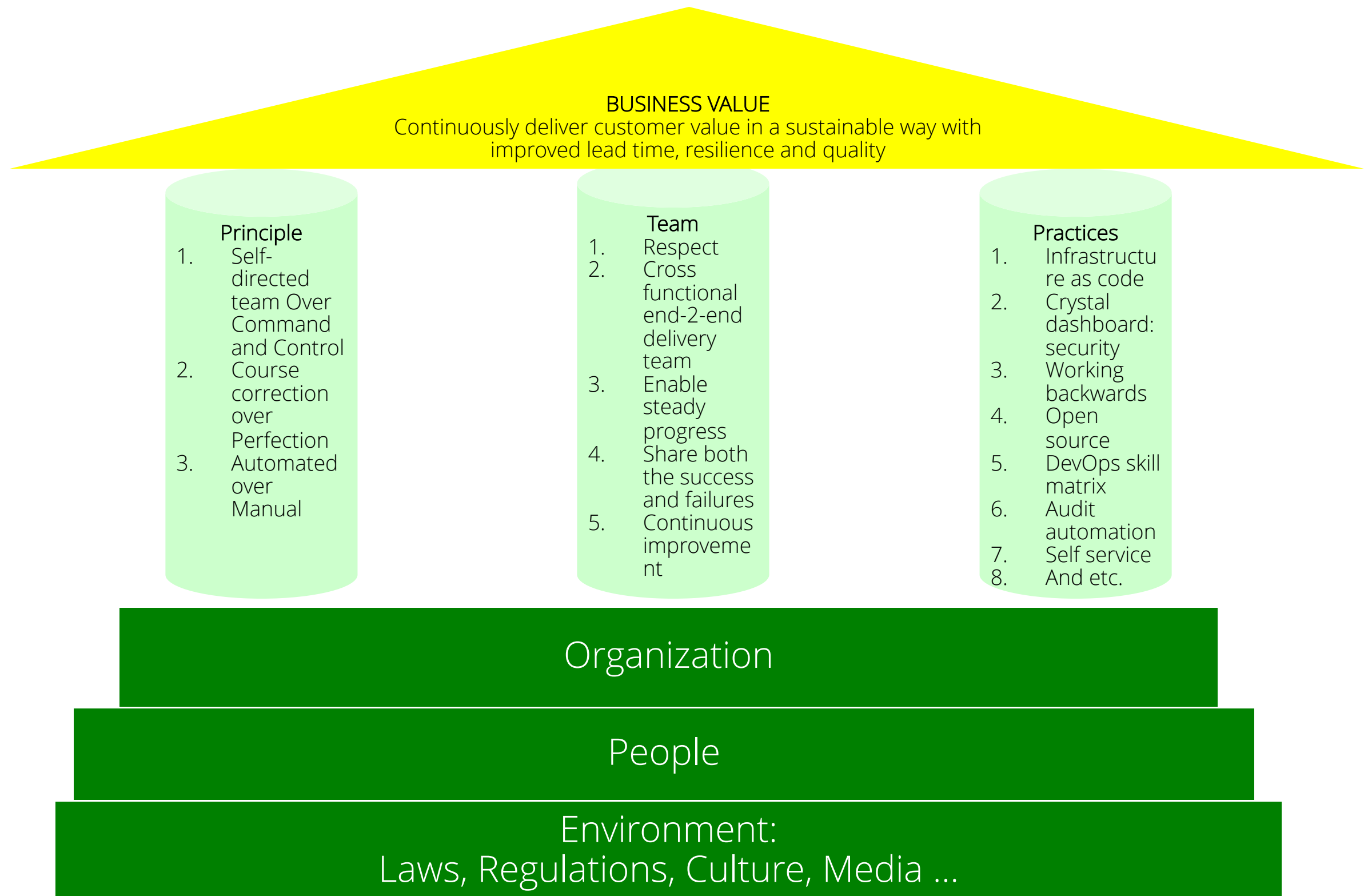
CONTEXT



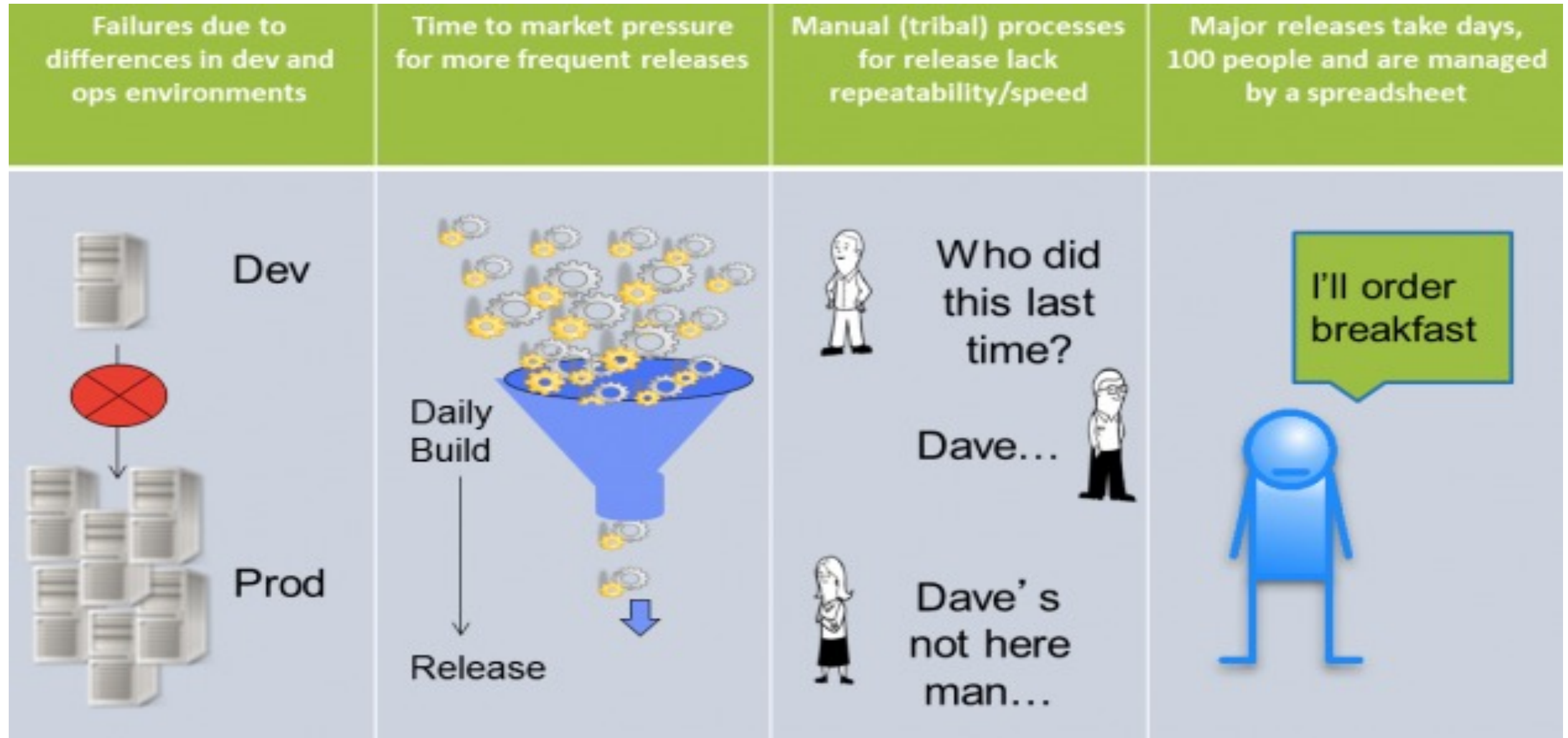
WHAT IS DEVOPS ?



WHAT IS DEVOPS ?



WHY TO ADOPT DEVOPS??

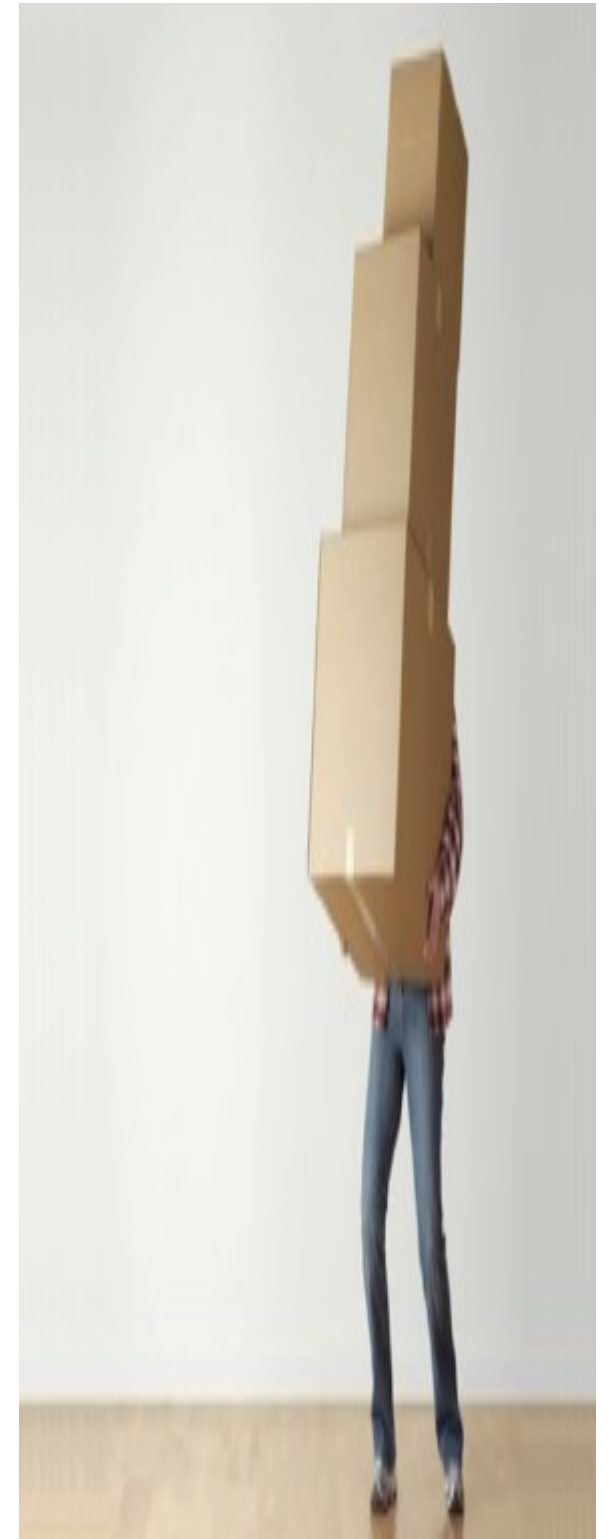


Stay Relevant In The Fast Changing World

BUILD YOUR HOUSE OF DEVOPS IN FOUR STEPS

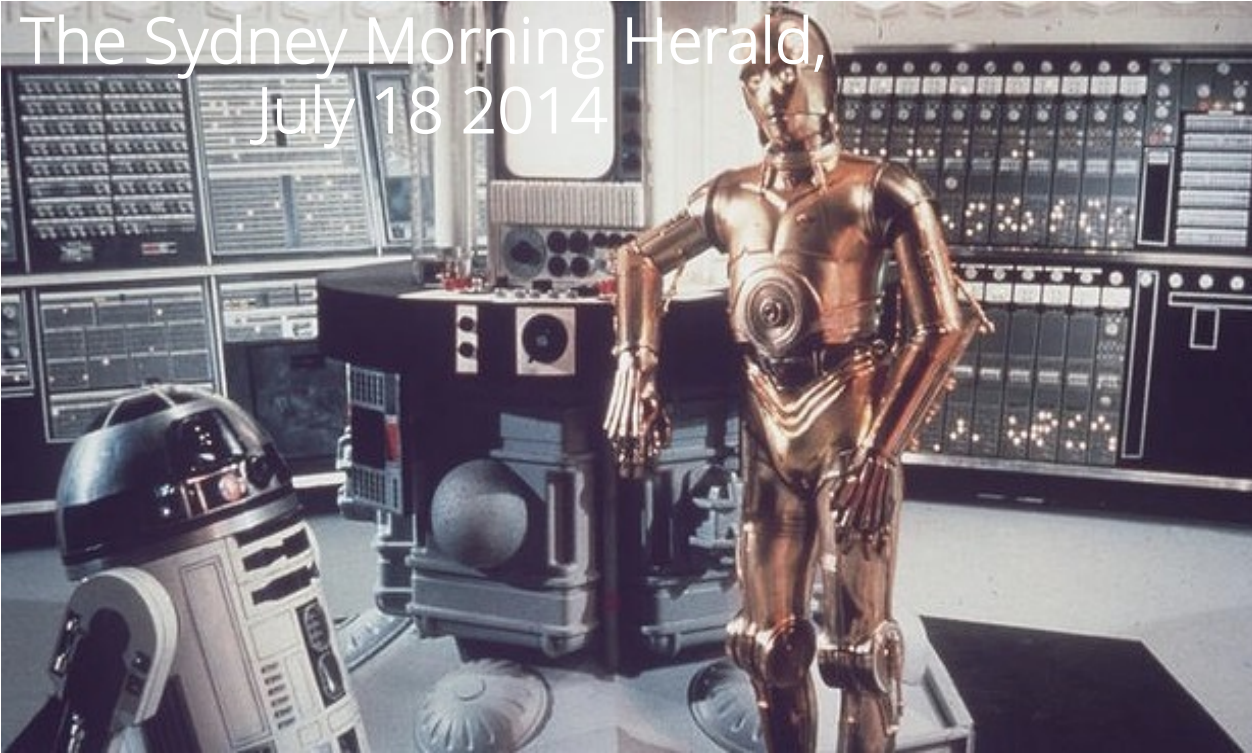
- ① Identify the goal
- ② Understand the base
- ③ Develop the pillar
- ④ Keep iterating, continuous improving

The journey – Discover the business value



The journey – Understand Environment and people

The Sydney Morning Herald,
July 18 2014

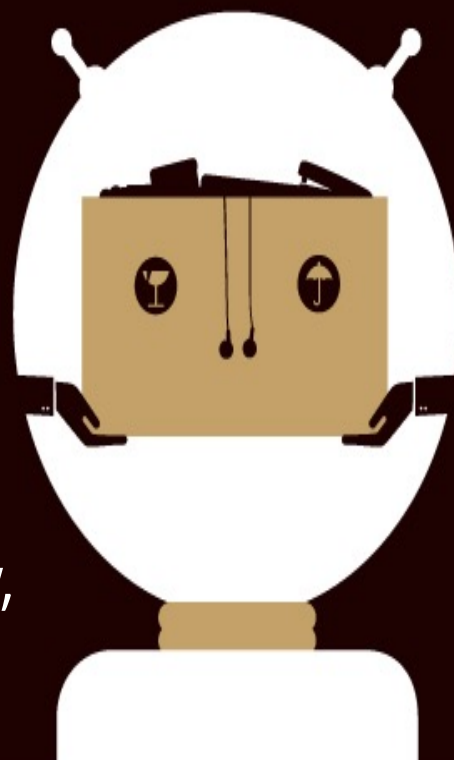


FEATURED STORY

How Technology Is Destroying Jobs

By David Rotman on June 12, 2013

MIT Technology Review,
June 12 2013



Amazon is currently having an issue with their storage network. Please stand by.

reddit is down.



it was probably an accident. please try to maintain your composure.

Quora

is down

We'll be back shortly, we hope. Sorry, it sucks for us too.

We'd point fingers, but we wouldn't be where we are today without EC2.



Netflix
@Netflixhelps

Follow



We're aware that some members are experiencing issues streaming movies and TV shows. We're working to resolve the problem.

Reply Retweet Favorite

14
RETWEETS



11:50 PM - 29 Jun 12 via web - Embed this Tweet

The journey – Understand the organization

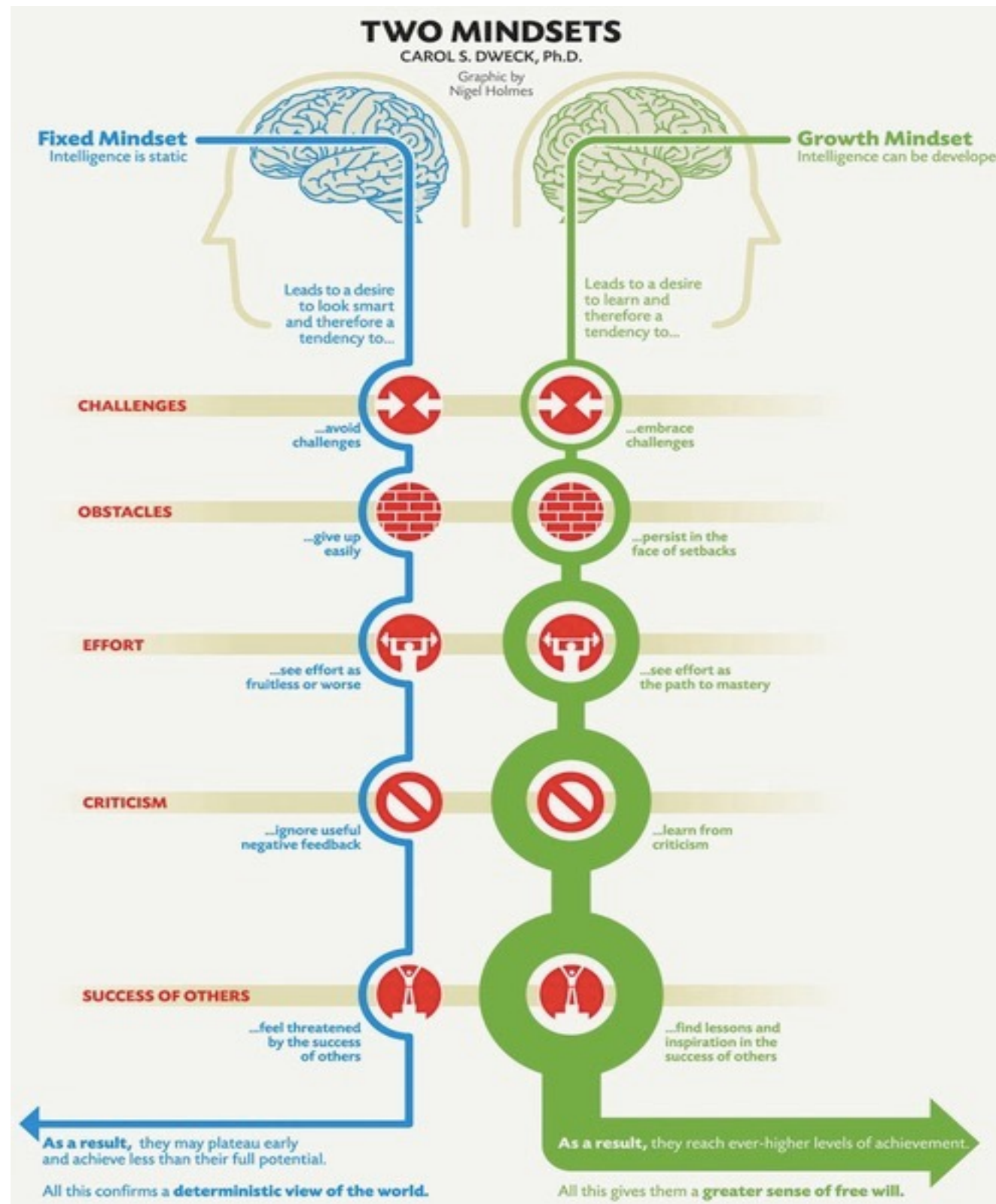
An organized group of people with a particular purpose.

All organizations have a management structure that determines relationships between the different activities and the members, and subdivides and assigns roles, responsibilities and authority to carry out tasks.

Organizations are open systems, they affect and are affected by their environment.

- From BusinessDictionary.com

Invisible – Fixed mindset vs. Growth Mindset



DEVELOP ORGANIZATIONAL GROWTH MINDSET

- ✓ Enable steady progress each day
- ✓ Safe to fail environment
- ✓ Innovation-friendly working environment

The journey – Pillar of Principle

- ✓ Self Directed team over Command and Control
- ✓ Course Correction over Perfection
- ✓ Automation over Manual

The journey – pillar of Team: PAST



The journey – pillar of team: Desired

Self Directed



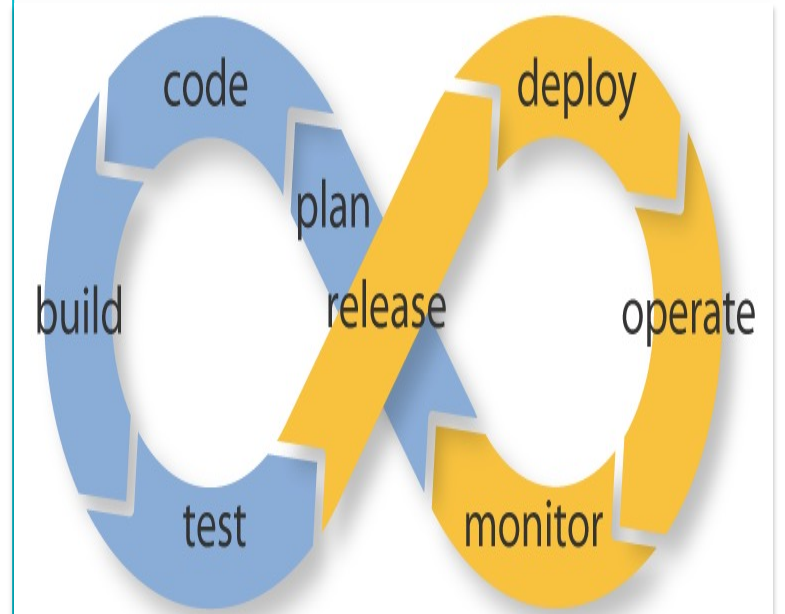
- Respect
- Competency
- Collaboration
- Motivation
- Safe to fail
- Continuity
- Continuous improvement

Cross-functional



- Shared goal
- Organization structure
- Knowledge Sharing
- Innovation
- Measure

End to End Delivery Team



- Value
- Reduce hand off rate
- Reduce lead time
- Early feedback

The journey – pillar of Practices

Essential

- Infrastructure As Code
- Build for failure
- Continuous Integration
- Testing Automation
- Version control
- Change control

Advanced

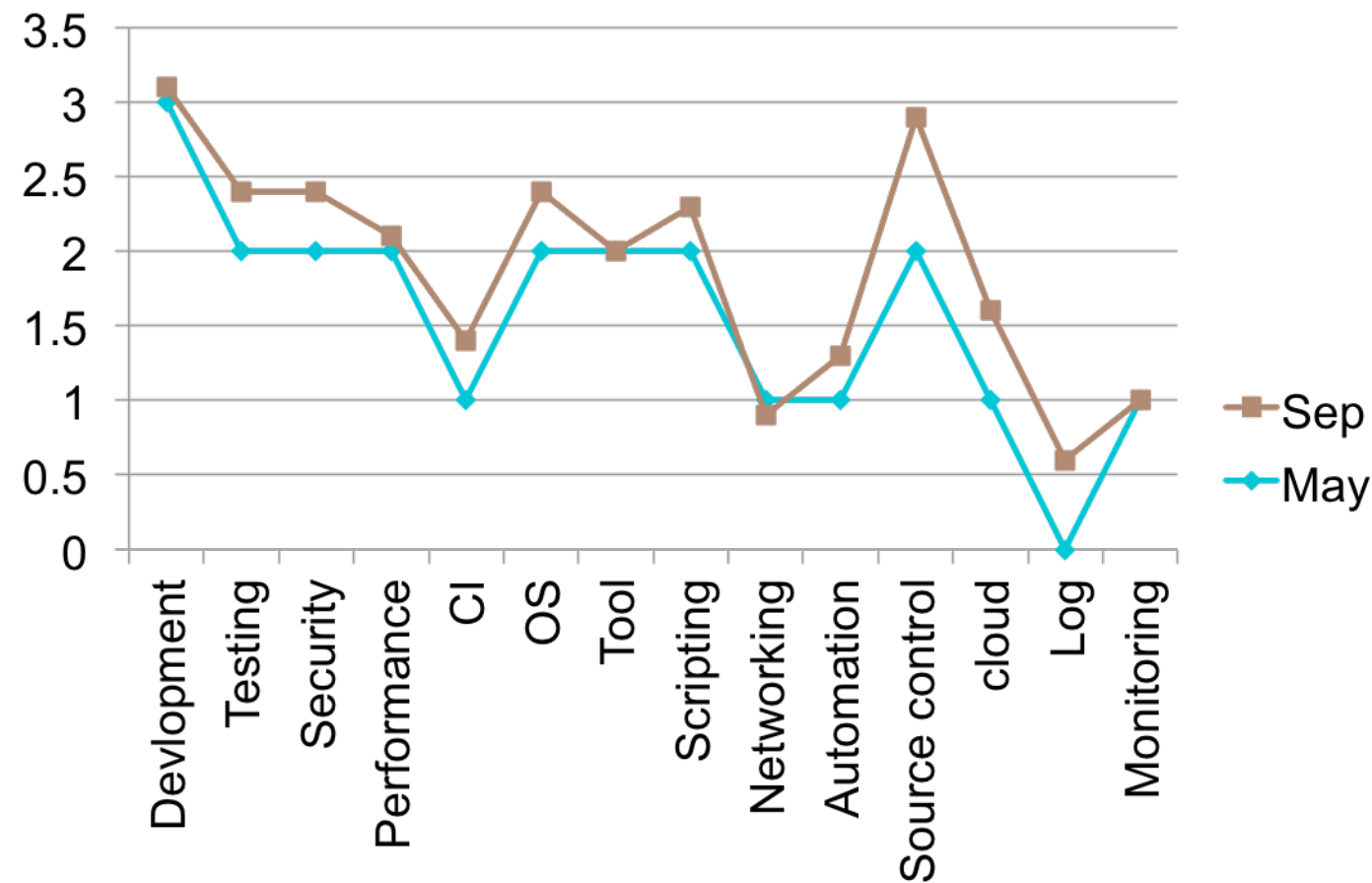
- Dashboard everything
- Monitor and audit everything
- Operational Matrix
- Continuous delivery
- Visualization

Customized

- Tool
- DevOps skill matrix
- Working backwards
- Audit automation tool
- Asset management automation
- Open source internally
- Sharing both failures and success

The journey – pillar of Practices:

- DevOps Skill Matrix



The self-evaluation of the skill

0	No skill
1	Basic knowledge
2	Perform basic tasks
3	Perform all tasks
4	Teach all tasks

THE JOURNEY - BUSINESS VALUE

	Before	After
End to End infrastructure provision	4-6 weeks	4 hours
Mean time to recover	Manual	Auto
Deployment Lead time	30 minutes or more	90% less than 10 minutes
Infrastructure testing	Manual	Auto
Infrastructure security patching	Manual	Auto
Environment consistency	No	Yes

Here IS what I'd like Help on

☐ Access Control

☐ Open Source

THANK YOU

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