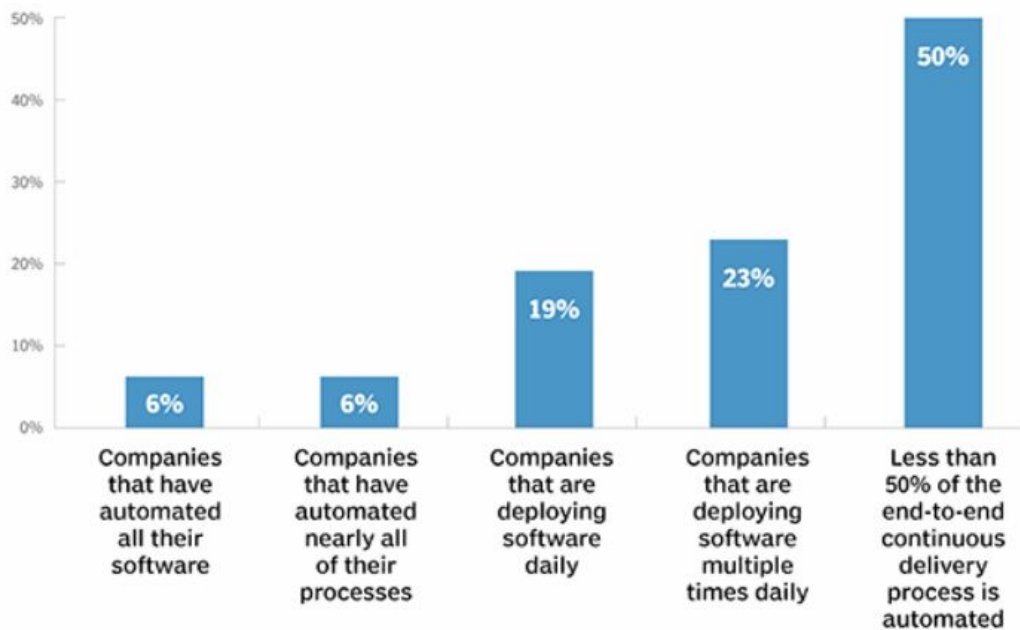# CI/CD
process of the future
to have the code NOW

Tomasz Szyborski

CI/CD by the numbers
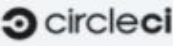

Companies that have automated all their software	Companies that have automated nearly all of their processes	Companies that are deploying software daily	Companies that are deploying software multiple times daily	Less than 50% of the end-to-end continuous delivery process is automated
6%	6%	19%	23%	50%
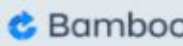
Be ahead of code.
Plan and design quality
as a built-in feature.

CI/CD Process

Commit change · Build · Test · Deliver · Deploy

Costs - affordable by all

	🎩 Jenkins	◎ circleci	■ TeamCity	♨ Bamboo	🦊 GitLab
Open source	Yes	No	No	No	No
Ease of use & setup	Medium	Medium	Medium	Medium	Medium
Built-in features	3/5	4/5	4/5	4/5	4/5
Integration	★ ★ ★ ★ ★	★ ★ ★	★ ★ ★ ★ ★	★ ★ ★	★ ★ ★ ★
Hosting	On premise & Cloud	On premise & Cloud	On premise	On premise & Bitbucket as Cloud	On premise & Cloud
Free version	Yes	Yes	Yes	Yes	Yes
Build Agent License Pricing	Free	From $39 per month	From $299 one-off payment	From $10 one-off payment	From $4 per month per user
Supported OSs	Windows, Linux, macOS, Unix-like OS	Linux or MacOS	Windows, Linux, macOS, Solaris, FreeBSD and more	Windows, Linux, macOS, Solaris	Linux distributions: Ubuntu, Debian, CentOS, Oracle Linux

Deliver code daily.
By all.

Fail fast - gain quality even faster!

Leverage infrasctructure as code using:

Deploy code seamlessly.
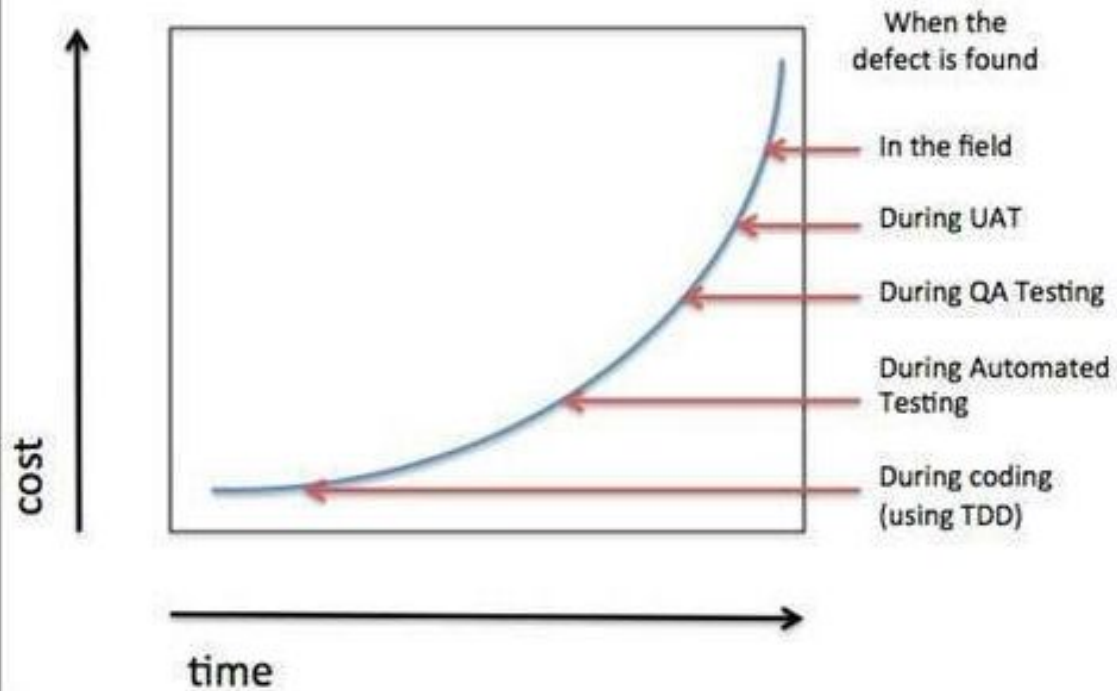From defined requirements.
Through code.
To the client.

By automation.

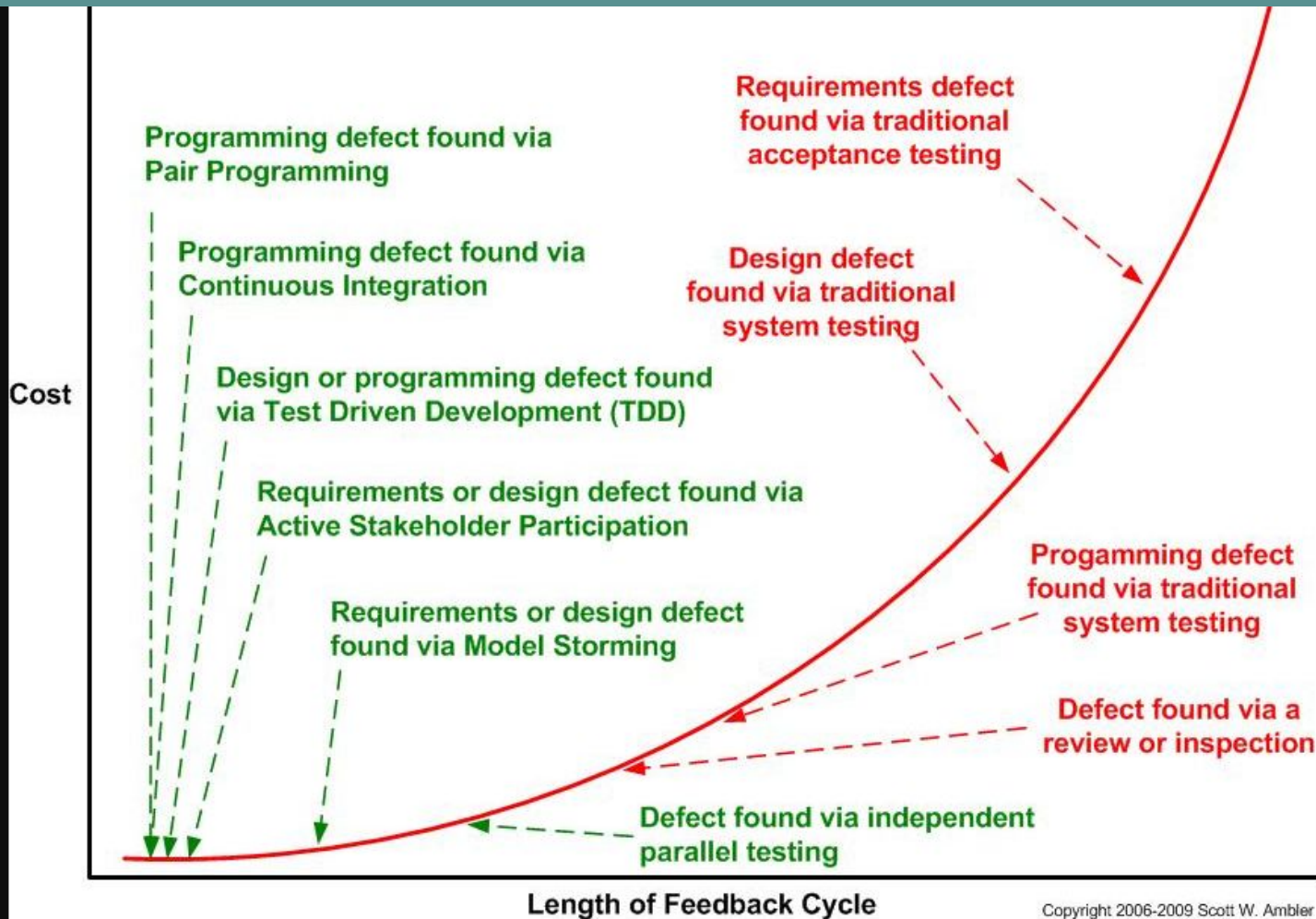**CI/CD decreases cost and time-to-find bugs tremendously.**

Cost of Defect Remediation Over Time

Squash the bugs early.
Save time, resources
and money!

Cost

Programming defect found via
Pair Programming

Programming defect found via
Continuous Integration

Design or programming defect found
via Test Driven Development (TDD)

Requirements or design defect found via
Active Stakeholder Participation

Requirements or design defect
found via Model Storming

Requirements defect
found via traditional
acceptance testing

Design defect
found via traditional
system testing

Progamming defect
found via traditional
system testing

Defect found via a
review or inspection

Defect found via independent
parallel testing

Length of Feedback Cycle

Copyright 2006-2009 Scott W. Ambler

Pay-as-you-go and don't be stopped

🔒 Monthly costs by service

Last 6 Months ▾	Monthly ▾		📊 Stack ▾

Group by: [Instance Type ✕]   Service   Linked Account   Region   Usage Type   Tag ▾   API Operation   Availability Zone   More ▾

Costs ($ in thousands)

■ t2.micro   ■ c4.2xlarge   ■ m3.large   ■ m4.large   ■ c4.large   ■ Others
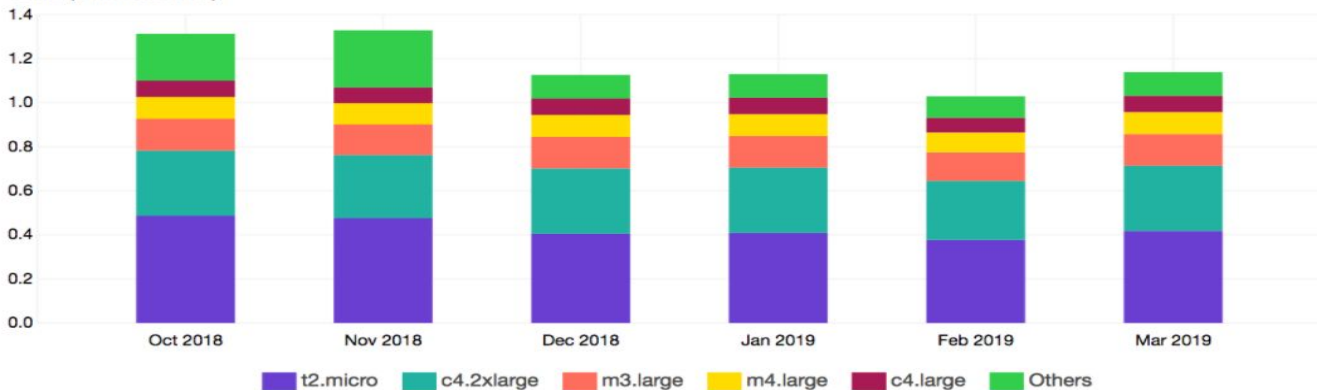
Download CSV

Instance Type	Oct 1, 2018	Nov 1, 2018	Dec 1, 2018	Jan 1, 2019	
Total cost ($)	1,312.71	1,328.54	1,125.99	1,129.65	
t2.micro ($)	486.75	475.89	405.63	409.27	
c4.2xlarge ($)	296.11	286.56	296.11	296.11	