

# Will Automation Improve Quality?

Guy Gershoni

**Automation is a...**





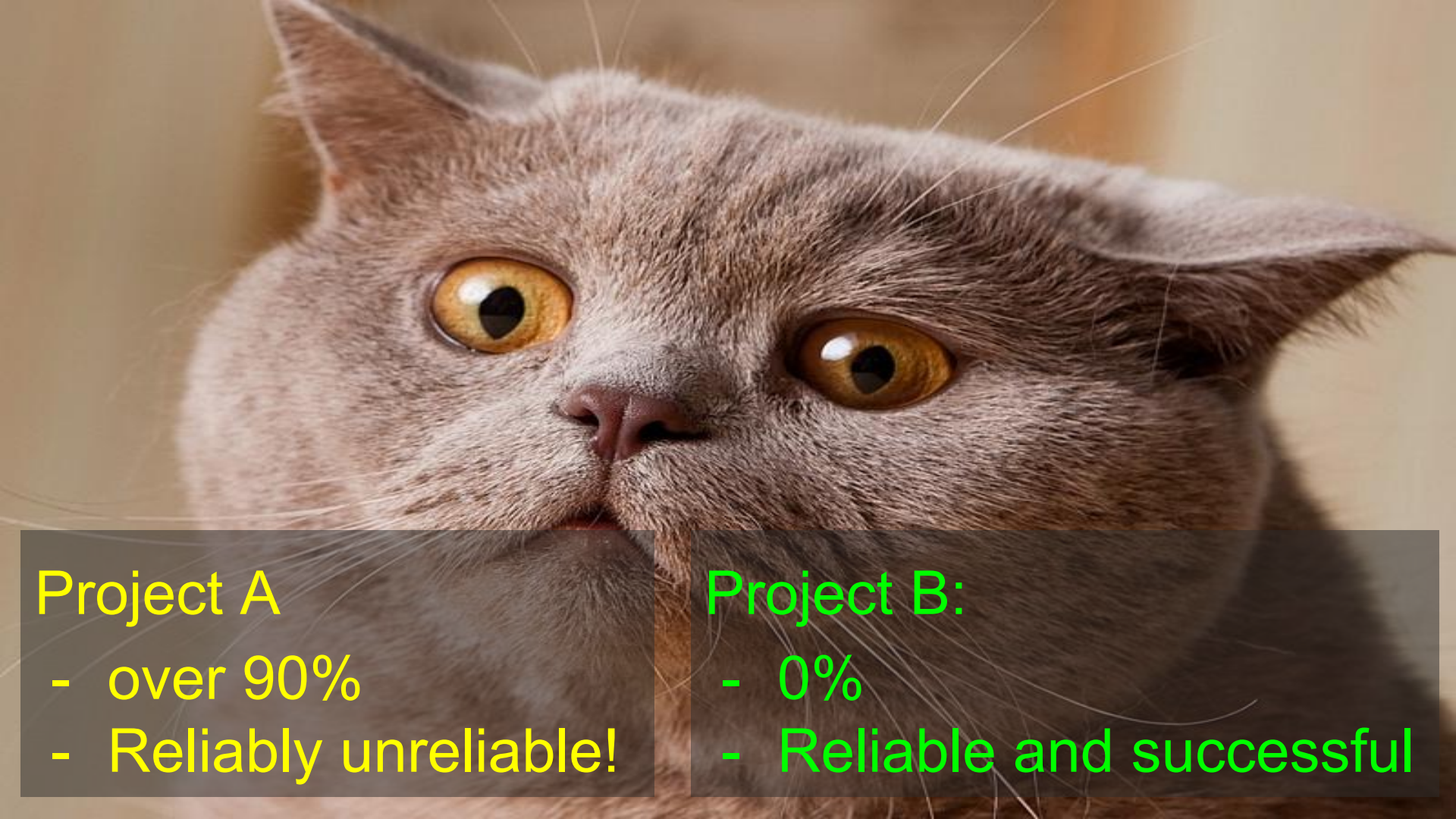
**Automation Myths**



## Code Coverage

- 100% == fully correct
- Will ensure quality





## Project A

- over 90%
- Reliably unreliable!

## Project B:

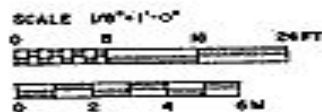
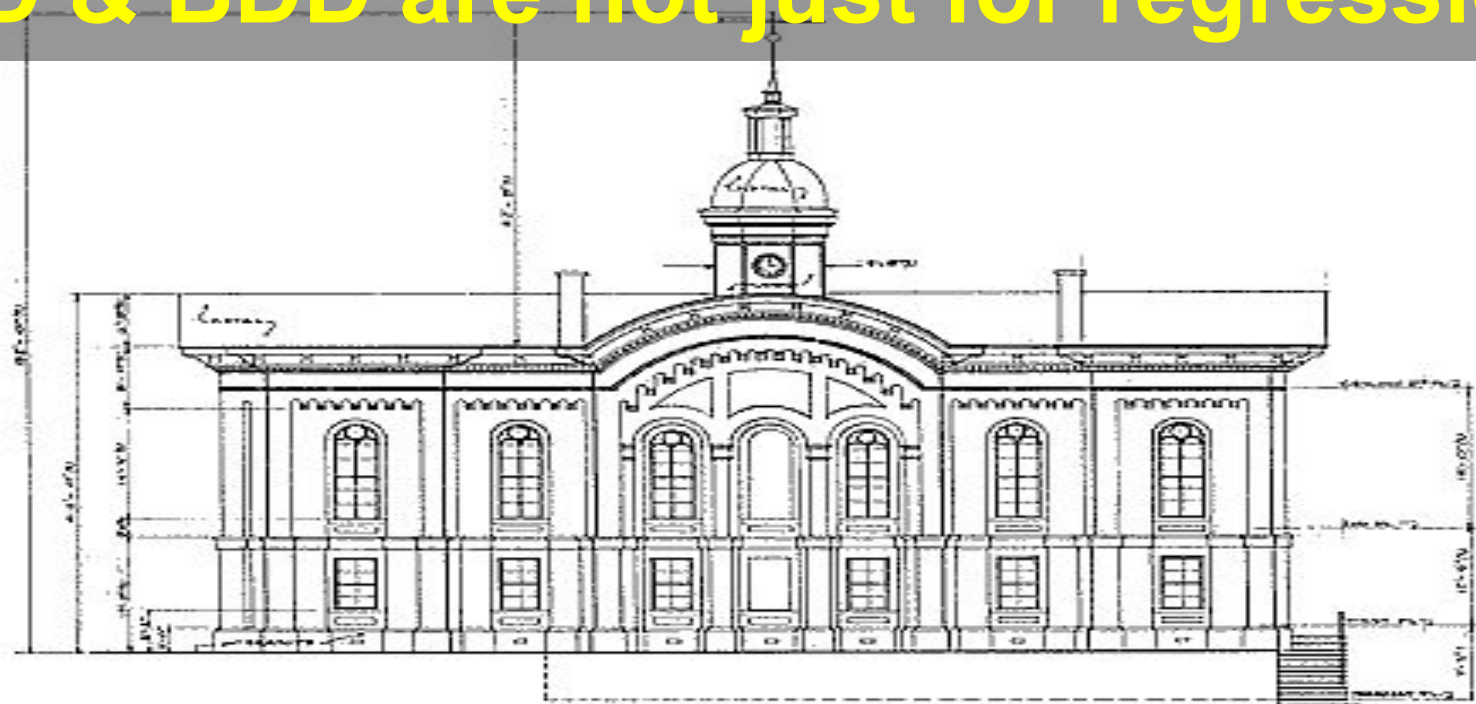
- 0%
- Reliable and successful



Expensive to Write, Run and Maintain



# TDD & BDD are not just for regression



SIDE ELEVATION  
SCALE 1/8" = 1'-0"

DRAWN BY MAX ISLEY, BERT ELLENTUCK

MAIN STREET

CASWELL COUNTY COURT HOUSE  
TANSEYVILLE, NORTH CAROLINA

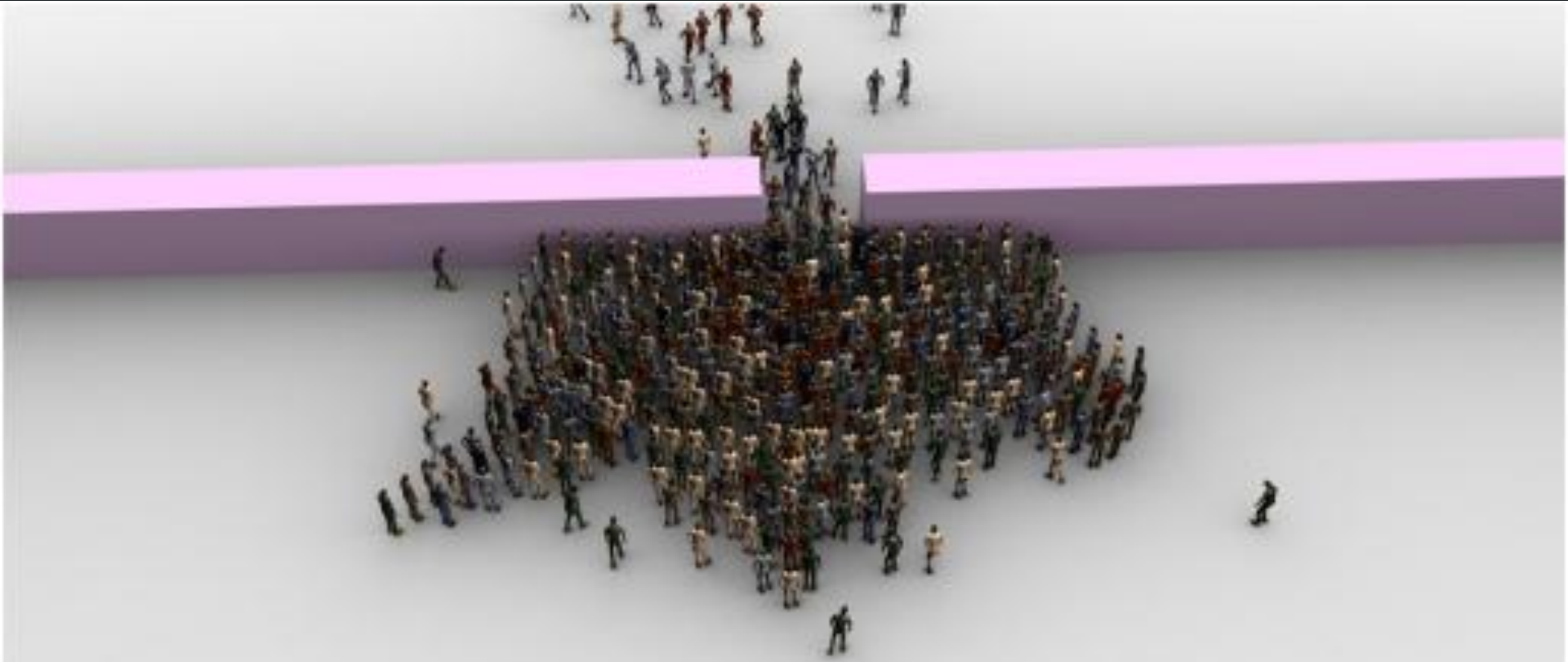
NO. 171

HISTORIC AMERICAN  
BUILDINGS SURVEY  
SHEET 3 OF 6 SHEETS



# Unit Tests VS Functional Tests





**Automated Testing can also become a bottleneck**



**Goal of Automation Suite... Fail FAST!**

Is a Gamble... play the odds







**Automation is not All or Nothing**

# Automated Testing != Manual Testing



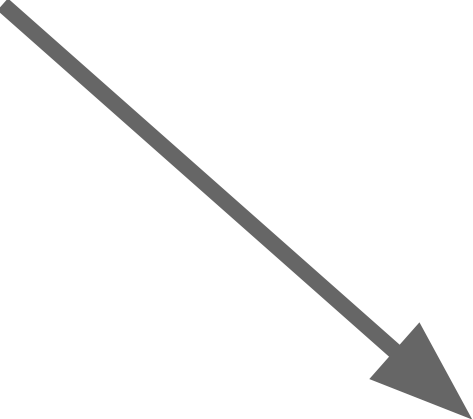
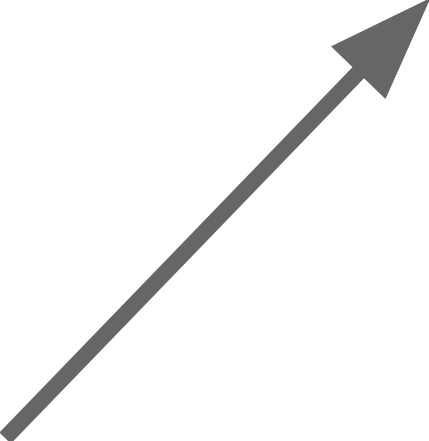
A diagram consisting of a large cyan circle with a thin black border. Inside the bottom portion of this circle is a smaller, horizontally-oriented light blue oval, also with a thin black border. The word 'Quality' is centered in the upper half of the cyan circle, and the word 'Testing' is centered within the light blue oval. This visualizes 'Testing' as a component or subset of 'Quality'.

Quality

Testing



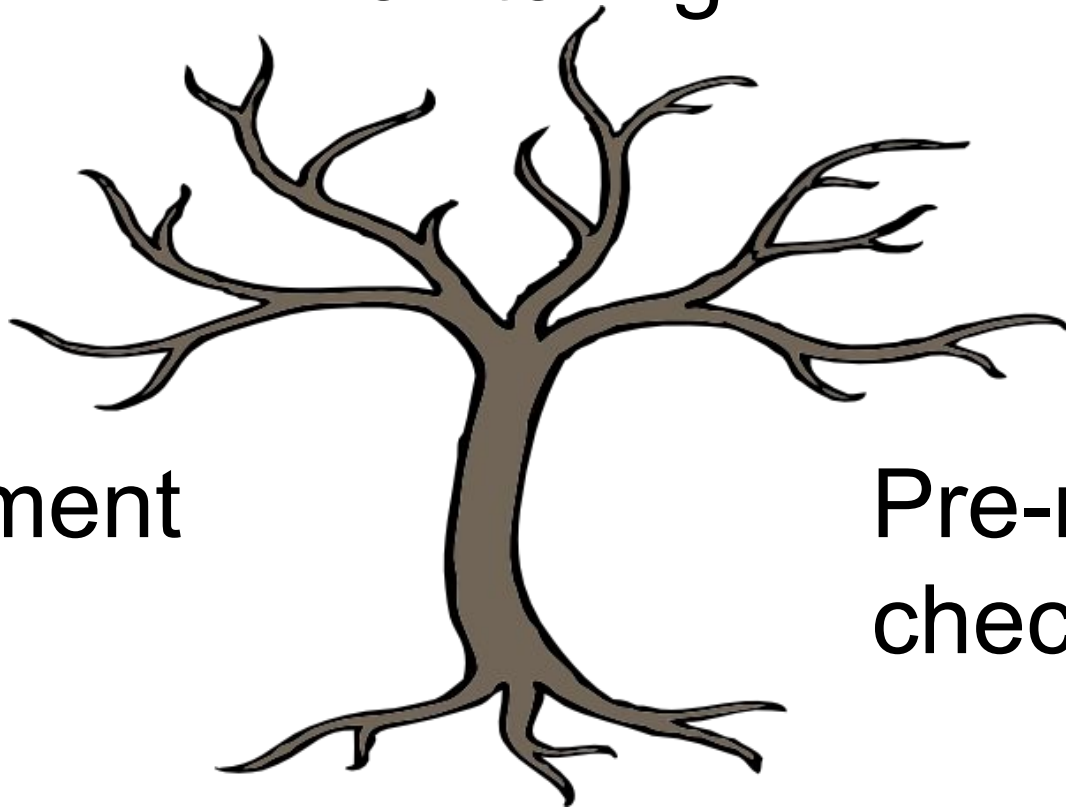
Define Quality



Improve Quality

Monitor Quality

Monitoring



Deployment

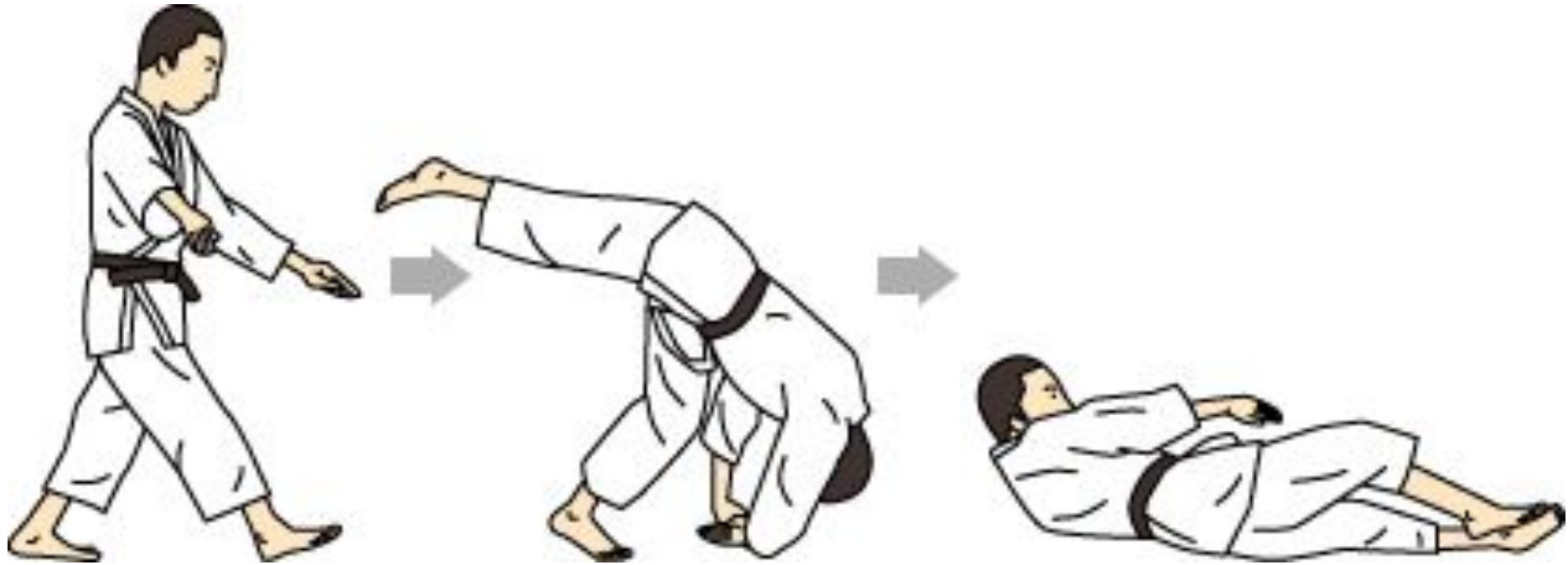
Pre-release  
checks

**Automation**

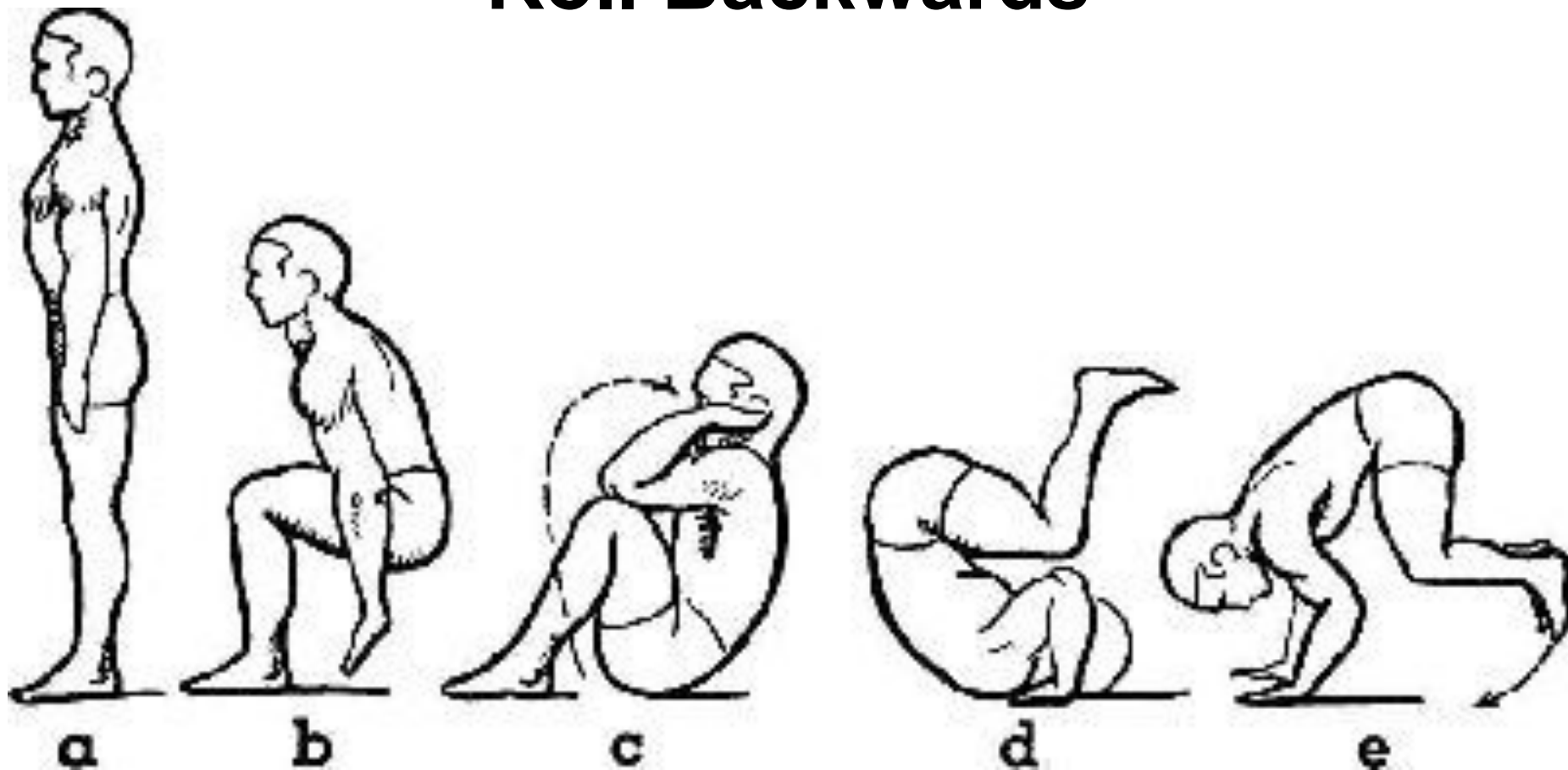




# Roll Forwards



# Roll Backwards





**Monitoring**



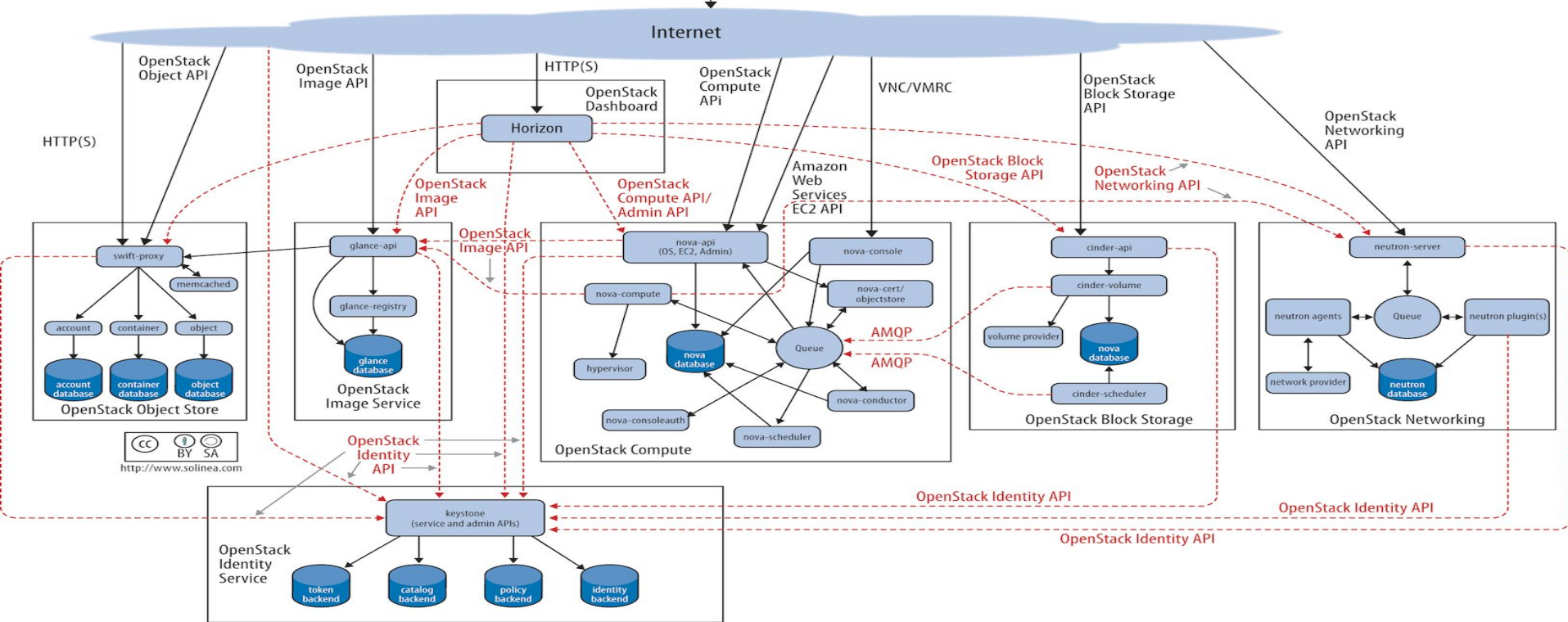
# Collect Logs



# System X hasn't logged payment for an hour?



- Command-line interfaces (nova, neutron, swift, etc)
- Cloud Management Tools (Rightscale, Enstratus, etc)
- GUI tools (Dashboard, Cyberduck, iPhone client, etc)



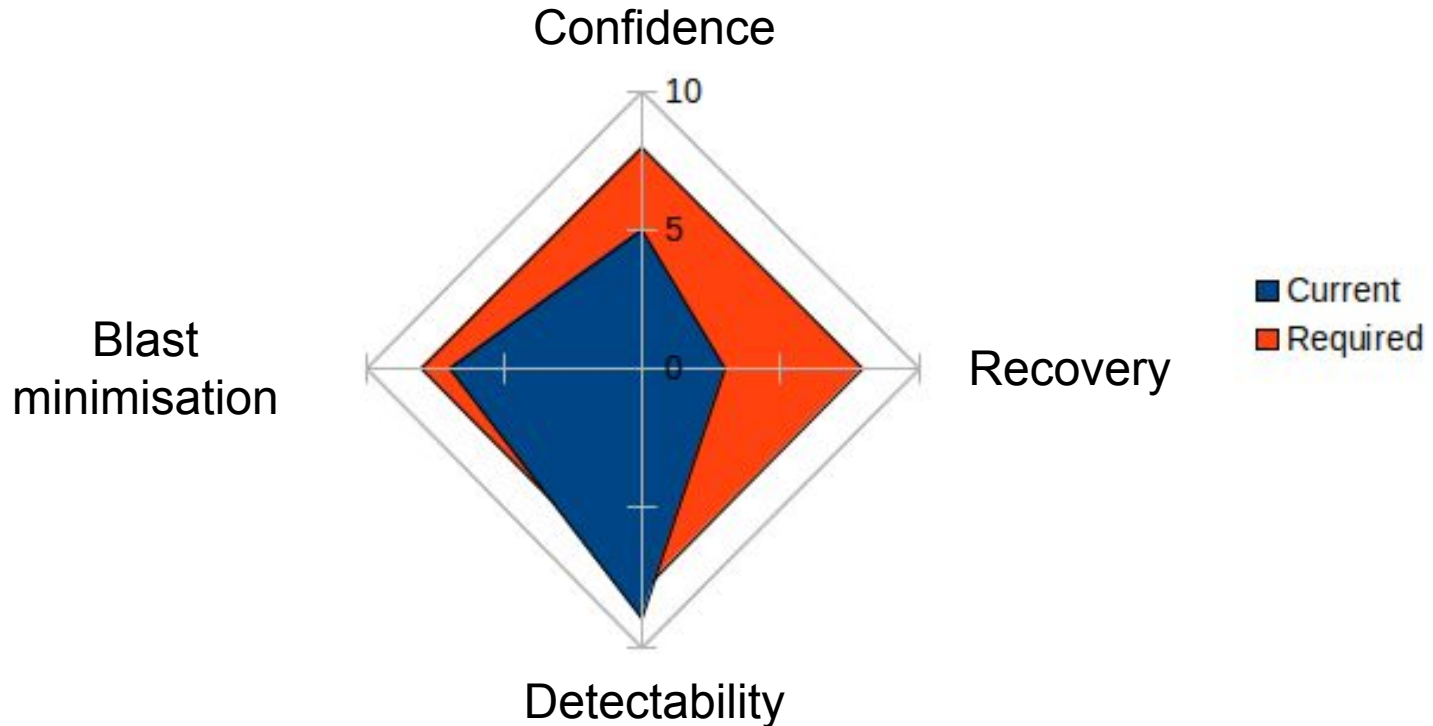


**Reduced  
MTTR!**



# Framework for Feedback

Continuous Deployment of Service: Go-No Go

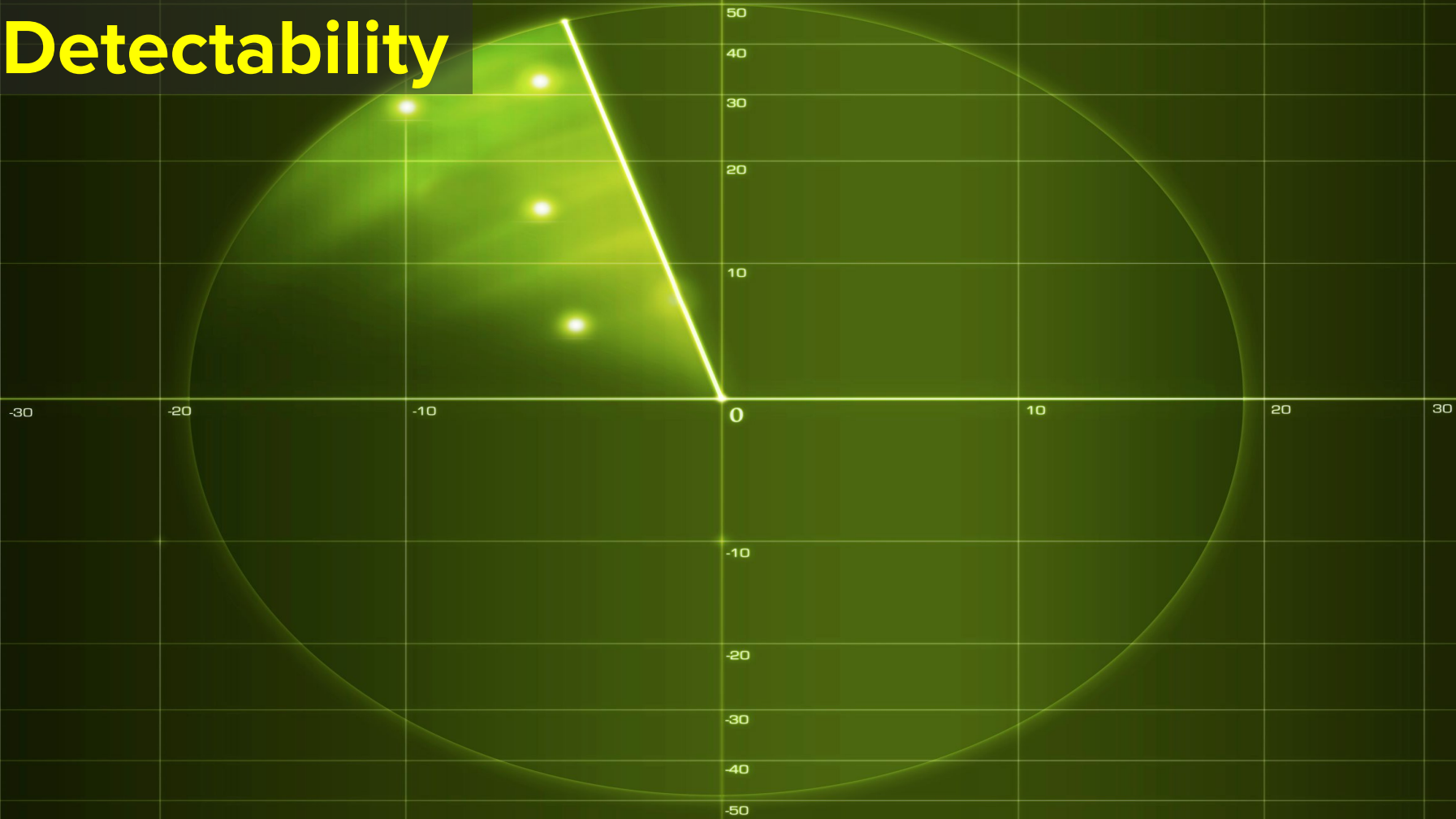




**Confidence**



# Detectability



# Recoverability



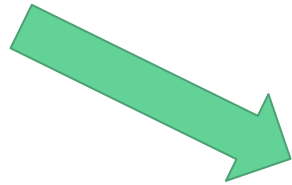
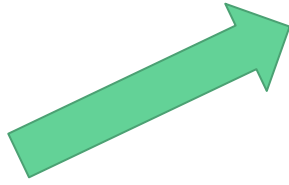
# Blast Radius





# Journey from Tester to...





# Summary

# Summary

- Can be complex and hairy
  - But can add value by broadening test scope
- Tests can add value in Analysis and Design phase
- Quality is not just Testing (Automated and Manual)
- Automation Suites should try and fail as fast as possible... can become a bottleneck
- Can reduce the cost of failure with good Deployments and Monitoring and reduce pressure on testing
- Work on appropriate level of automation for team/company... can change over time.



Questions?

