

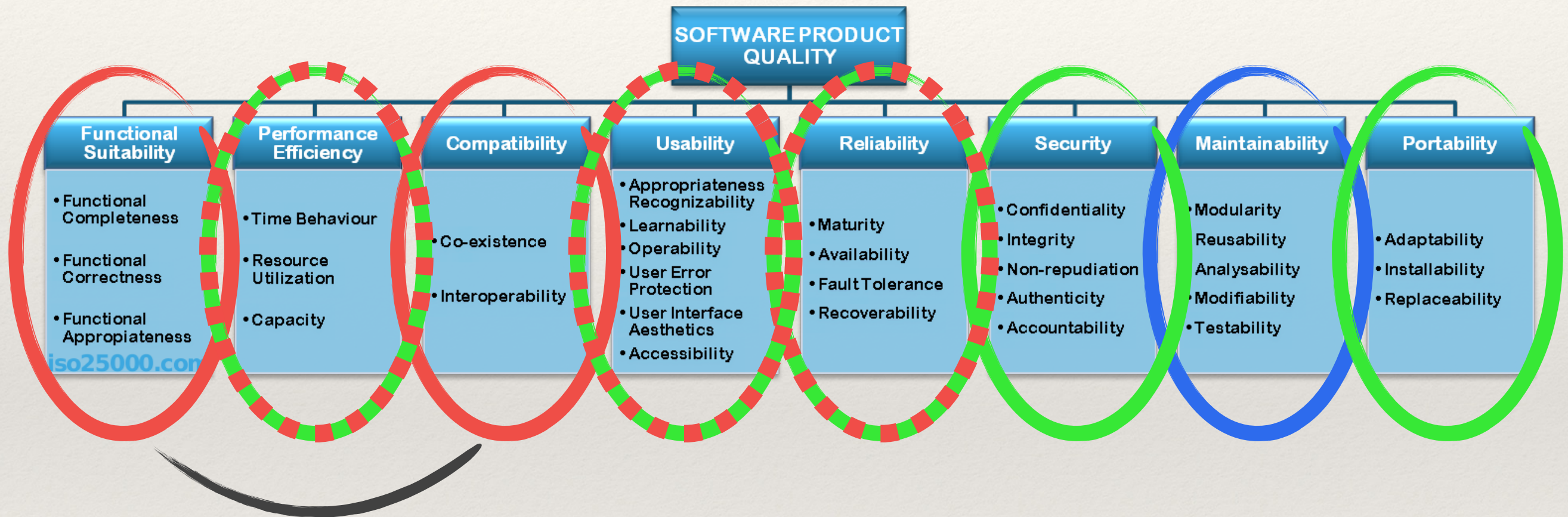


Deniss Ločmelis, senior QE

How and when to measure quality in agile software development projects

Quality characteristic analysis and recommended performance and quality metrics

Quality characteristics



Measurement responsibilities legend:

-  - QA, developer
-  - Developer
-  - other project members (design, ops, security specialists)
-  - connection line

Before you define

Mature?

Goal?

ROI?

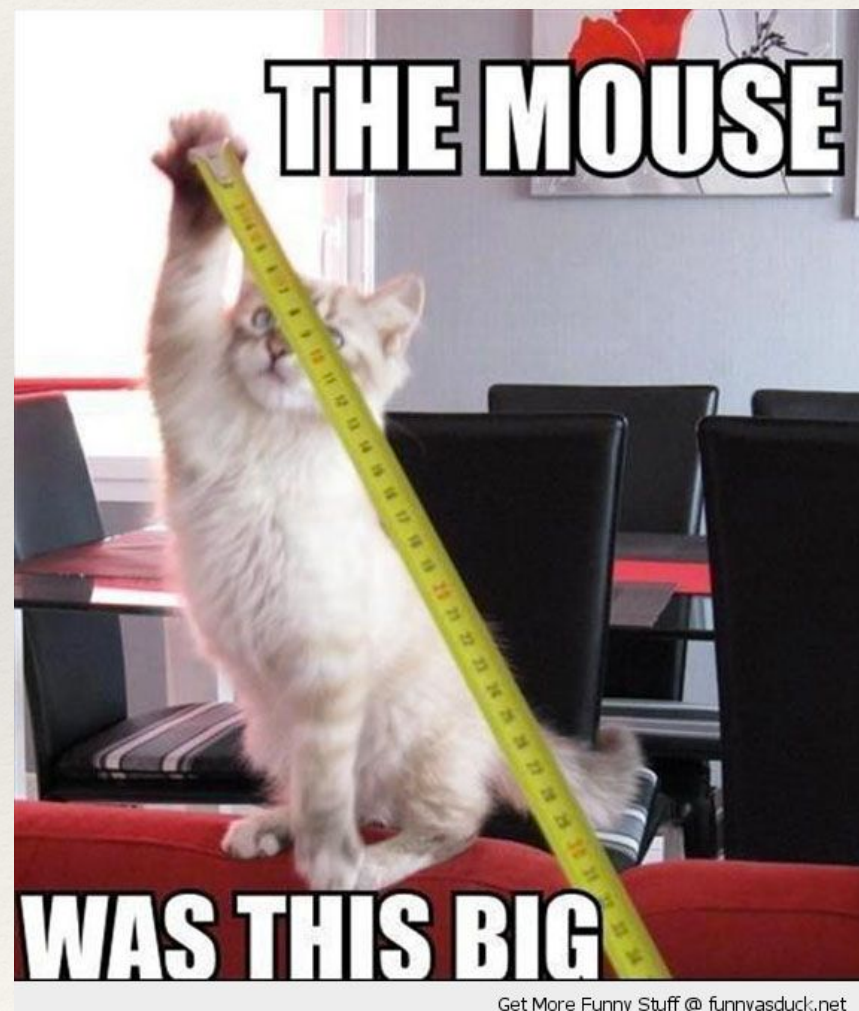
Positive?

Simple?

Team effort?

Quality metrics in agile

What?

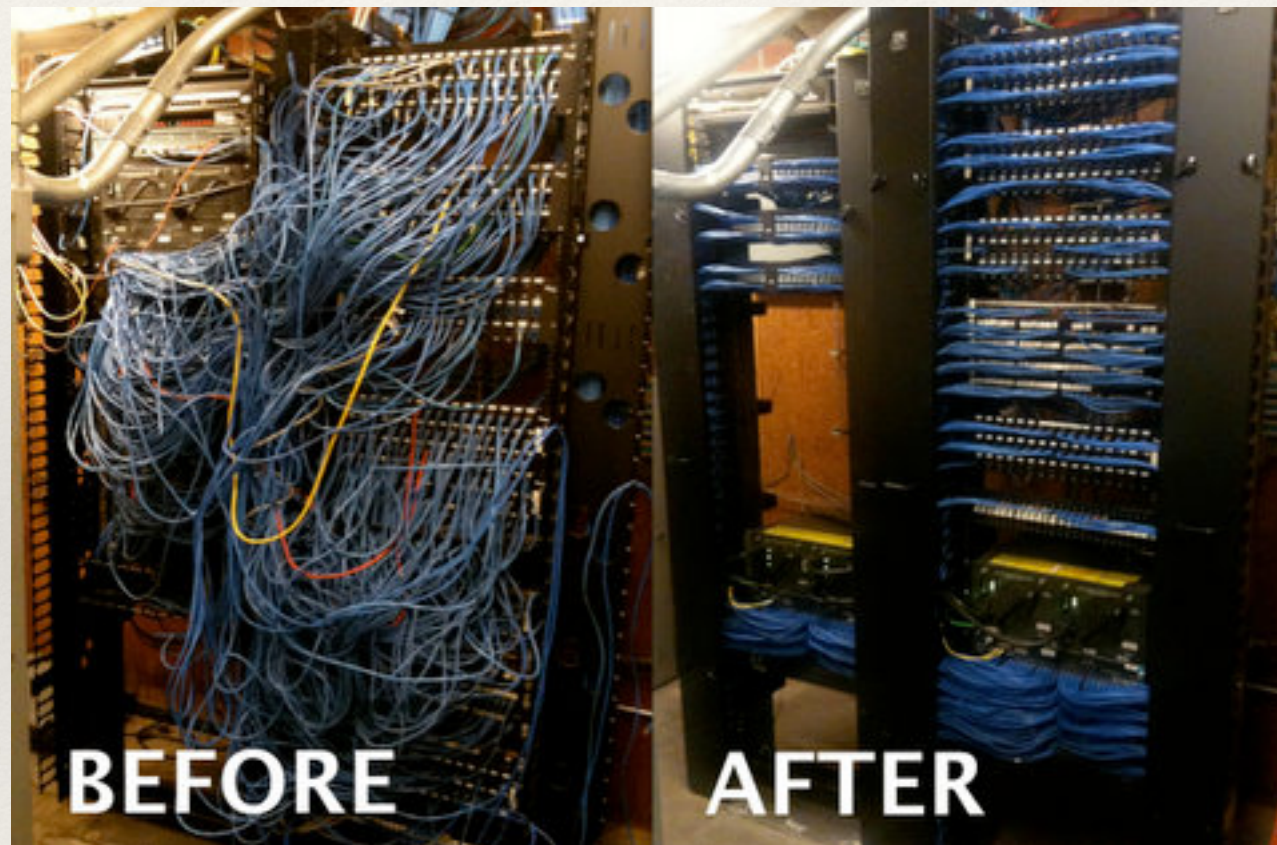


Developer domain metrics

QA domain metrics

Developer domain metrics

Code complexity



McCabe's

Halstead's

other...

class coupling

depth of inheritance

Developer domain metrics

Code coverage: UT, IT

~~80% 90% 99%~~

statement, branch, path?



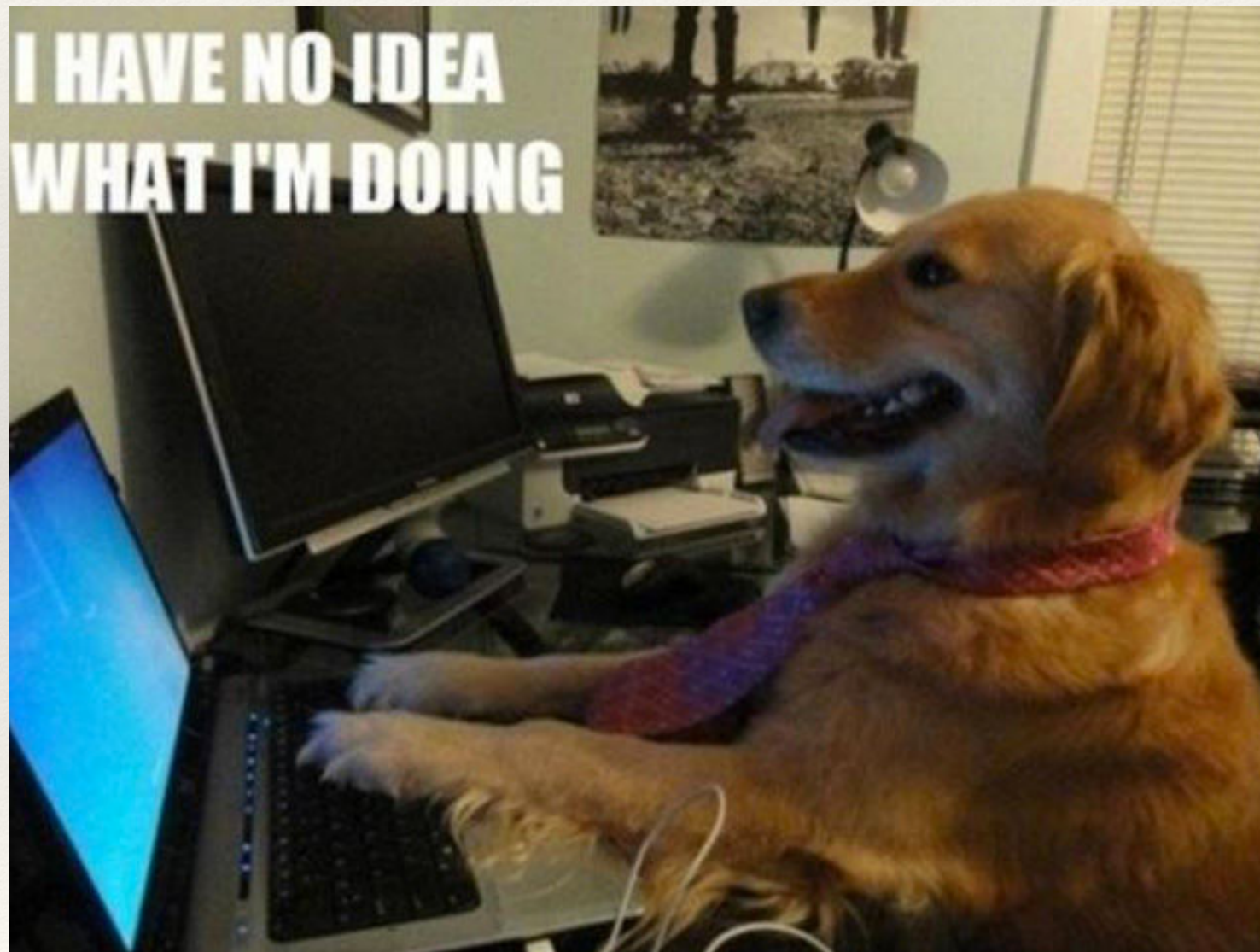
CI build status

...days since last “red” status

...consecutive “red” status days

Developer domain metrics

MTTR



Developer domain metrics

MTTR

Code
complexity

+

MTTR

=



SLOW AND STEADY
WINS THE
RACE



QUICK AND DIRTY
GETS YOU
LAID



stickychomics.com

Developer domain metrics



Code complexity

MTTR

Code coverage

CI build status

keep as visual trends!

QA domain metrics

Defect tracking metrics

DRE

Defect removal efficiency

DIR

Defect injection rate

DFE

Defect fixing effort



Caper Jones and Olivier Bonsignour

QA domain metrics

Defect tracking metrics

Major / Critical issues

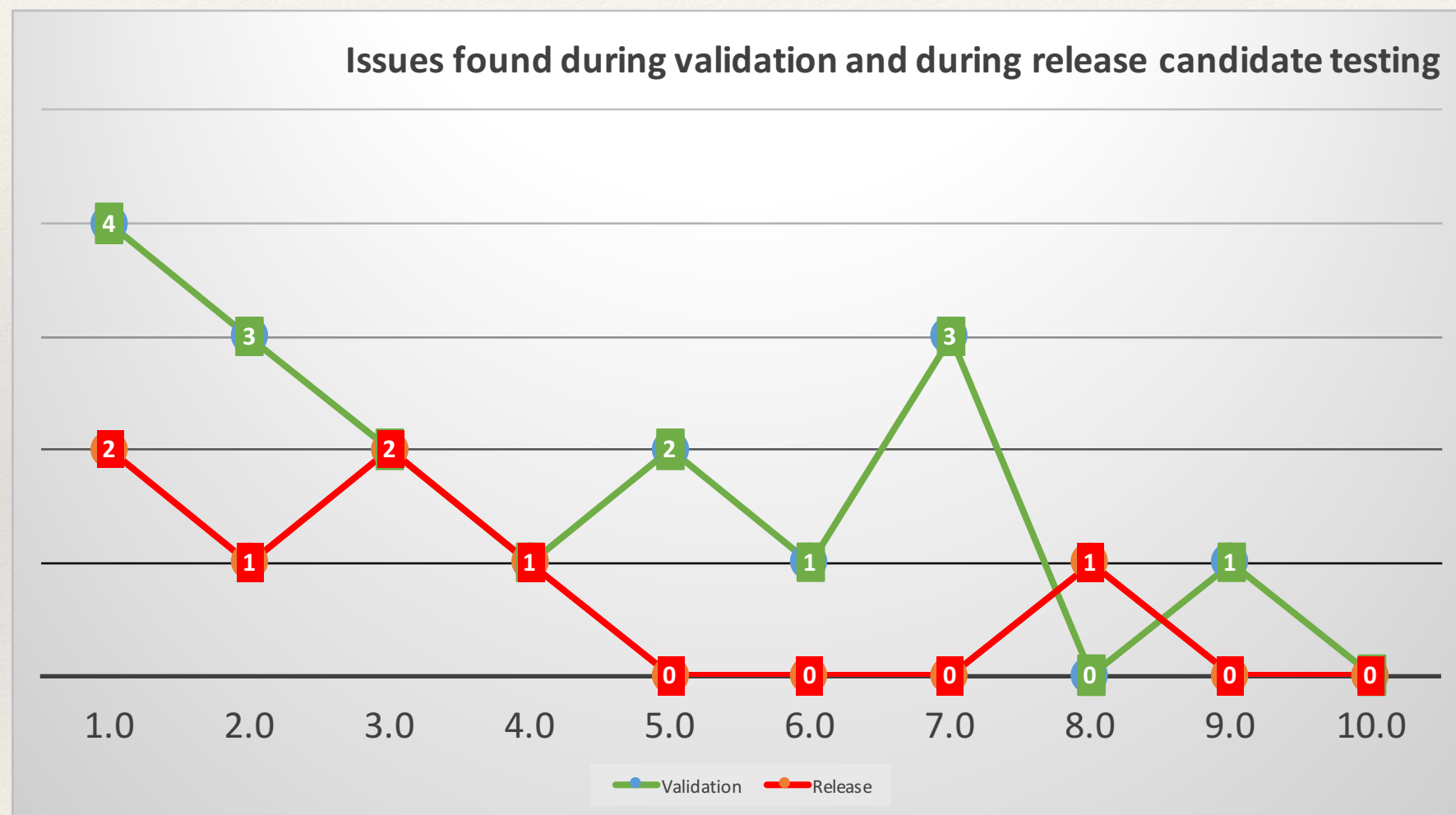
Validation

Release

Crashes / sys errors

Production

QA domain metrics



QA domain metrics

Release effectiveness metrics

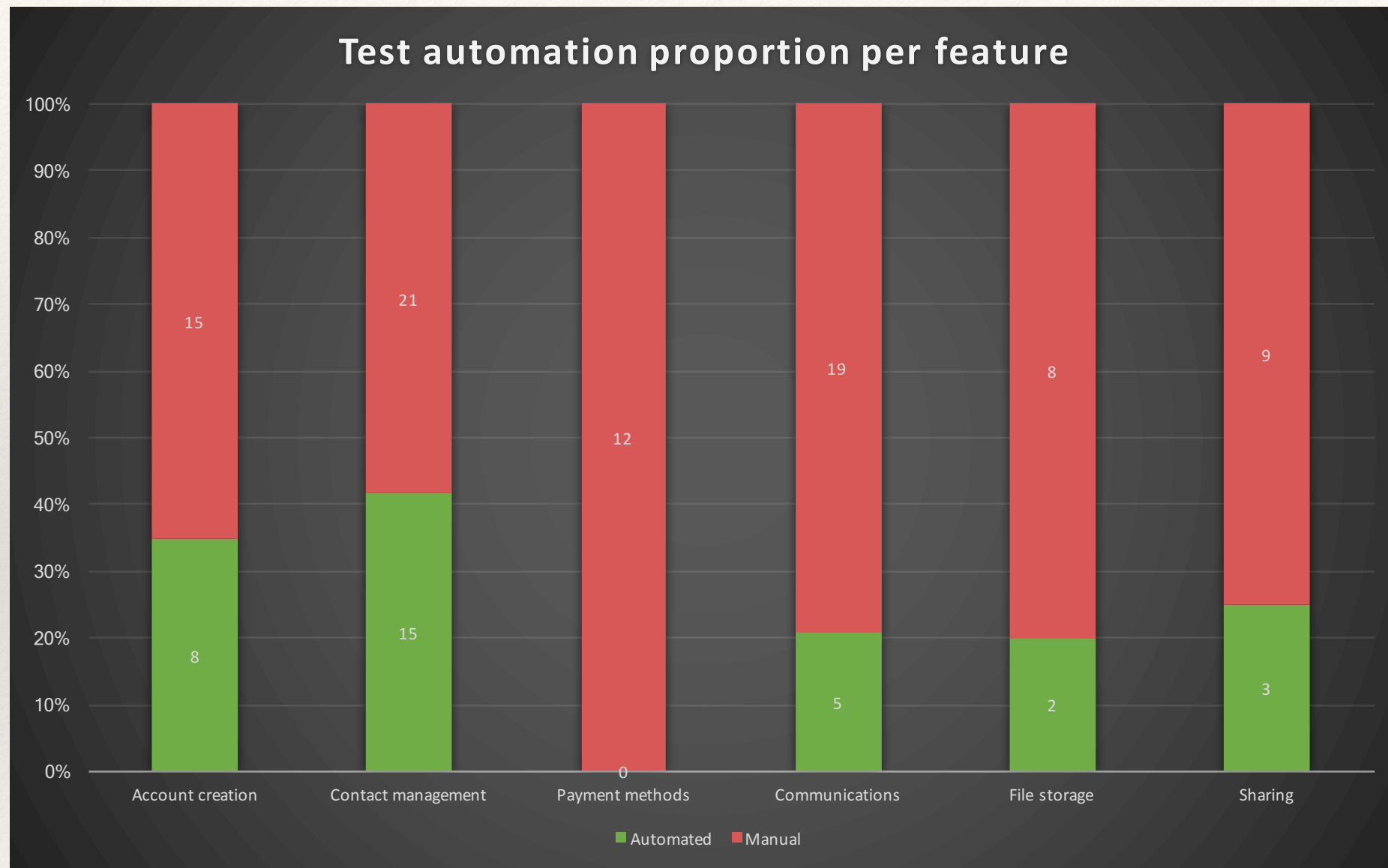
Test automation proportion

Per feature

Per release

Release validation time

QA domain metrics



QA domain metrics

Customer satisfaction metrics

Store reviews per release

Customer service issue count

Defect count from direct channel

QA domain metrics

Major / Critical issues found in validation

Major / Critical issues found in release testing

Test automation proportion per feature

Test automation proportion per release

Crashes / errors: overall count

Crashes / errors: per occurrence %

Time invested in release validation

Customer reviews / defects

Quality metrics in agile

When?



Quality metrics in agile

Live/ Per build cycle	Per sprint / cycle / release
Complexity metrics + MTTR	Major issue tracking in validation / release test
Code coverage	Test automation proportion
Crashes / errors	Time invested in release
Build status	Customer reviews / defect reports

Where I can start?

Major issue count:
Validation/RC
tests

Complexity
metrics

Test automation
proportion

Thank you and
have a nice rest of TAPOST!

