Creating Engineering Culture

An Agile Transformation Along With Engineering Culture Adaption Case Study

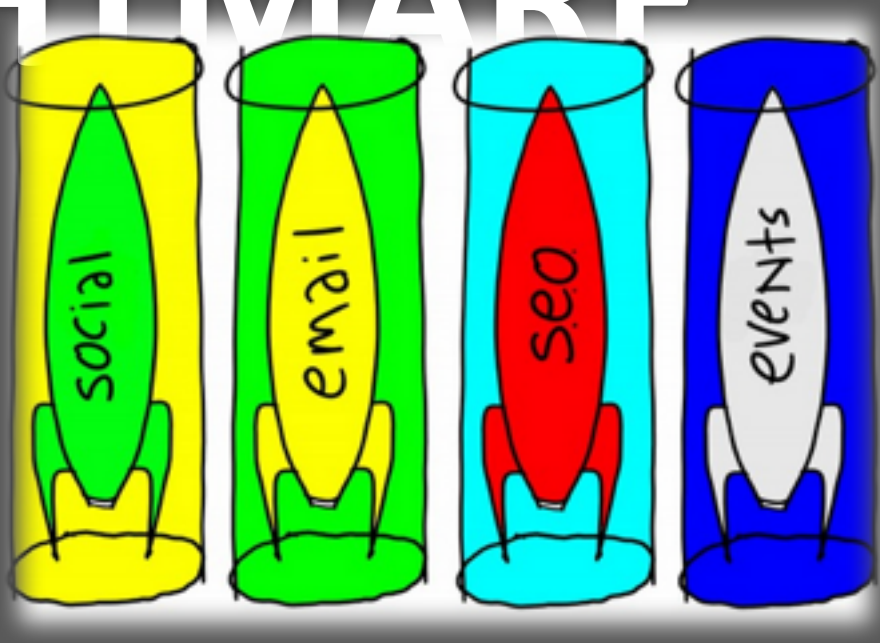
Vijay Bandaru

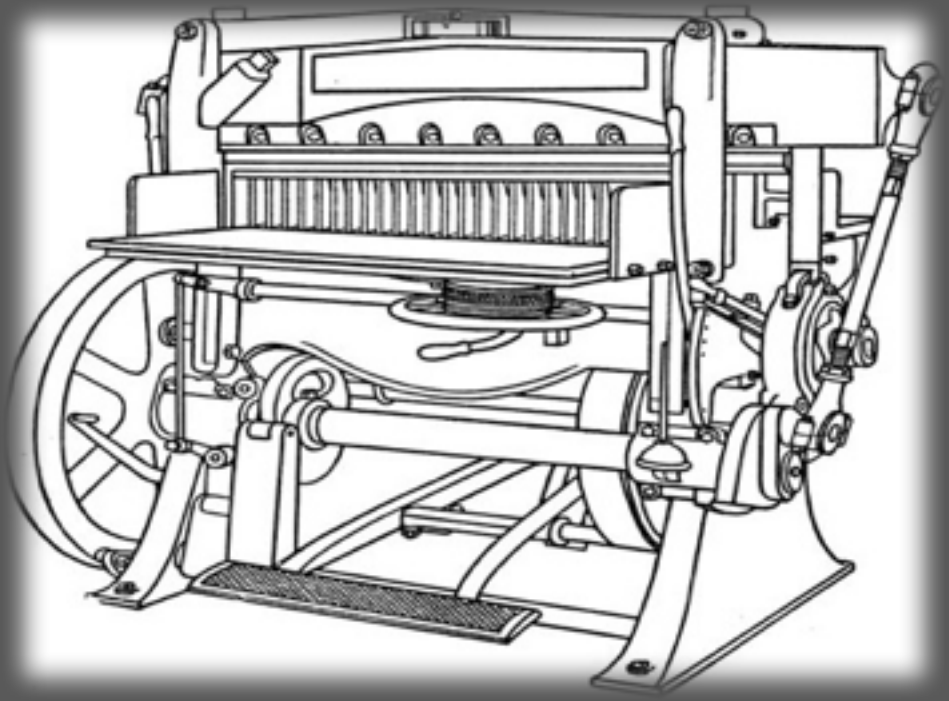
CTC, CSPO, CSP, CSM, PMI-ACP, ITIL, PMP

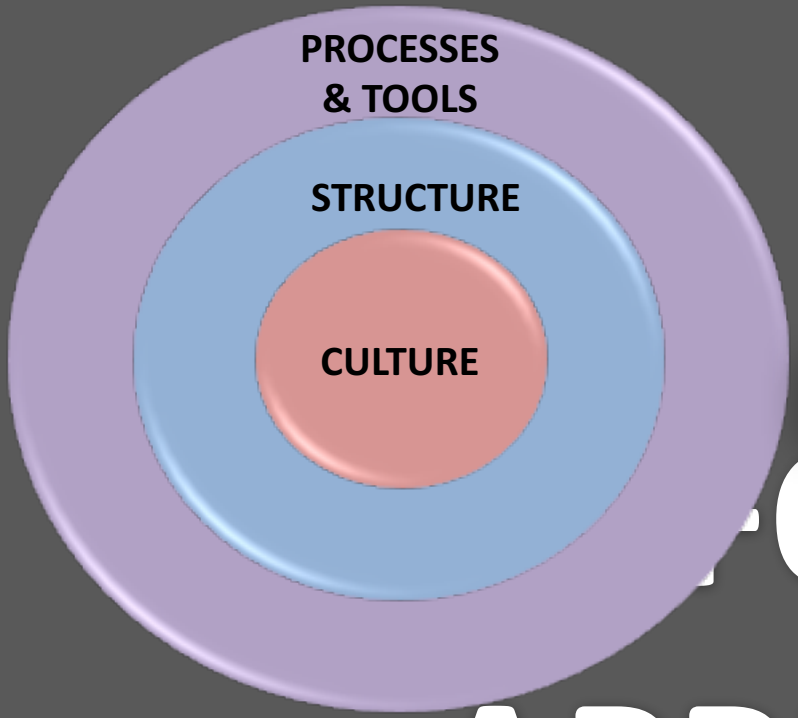
THE COMPANY

ivy comptech

THE NIGHTMARE



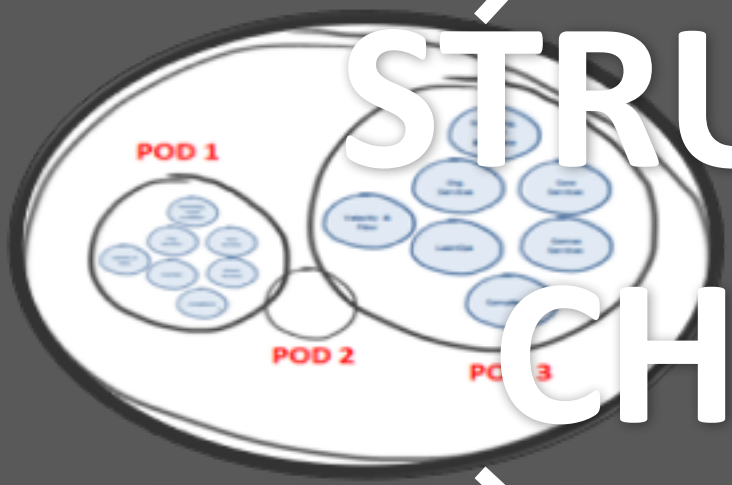


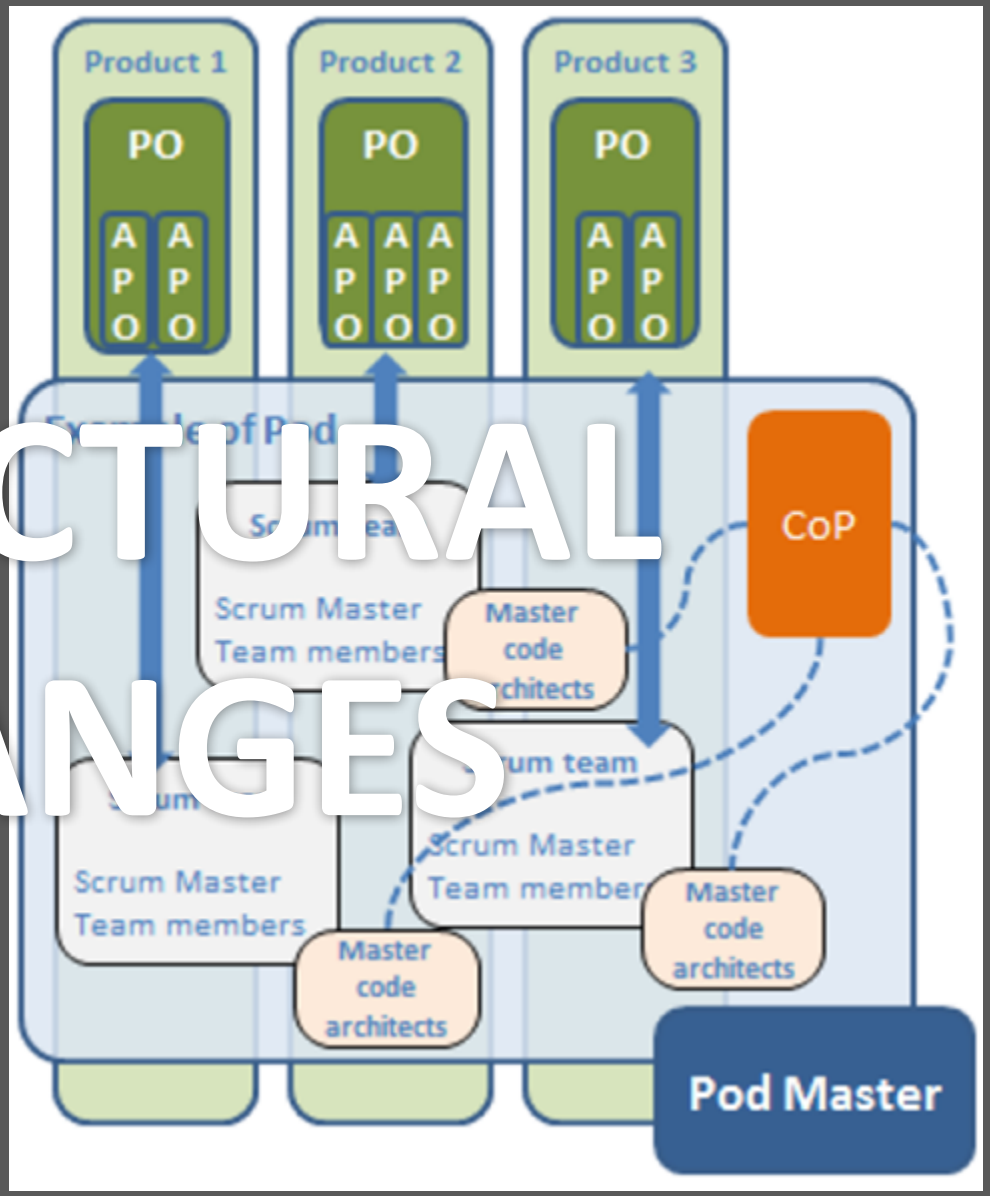


-ORMATION

APPROACH

STRUCTURAL CHANGES





SKILLSET	COMPONENTS
JAVA/J2EE	PROMOTIONS
AM&Q	BONUS
TERRACOTTA	LOYALTY
ORACLE(DB)	EDS
TEST AUTOMATION	MESSAGING
MANUL TESTING	WALLET

AGENDA

- Kick off : 2:00 PM
- POD Master Talk : 2:30 PM
- Q&A : 2:45 PM
- PO Talk on Product Vision : 3:15 PM
- Break! : 3:30PM
- Round 1 : 3:45 PM
- Round 2 : 4:15 PM
- Round 3 : 5:00 PM
- Naming the Teams : 5:15 PM
- Closure : 5:45 PM

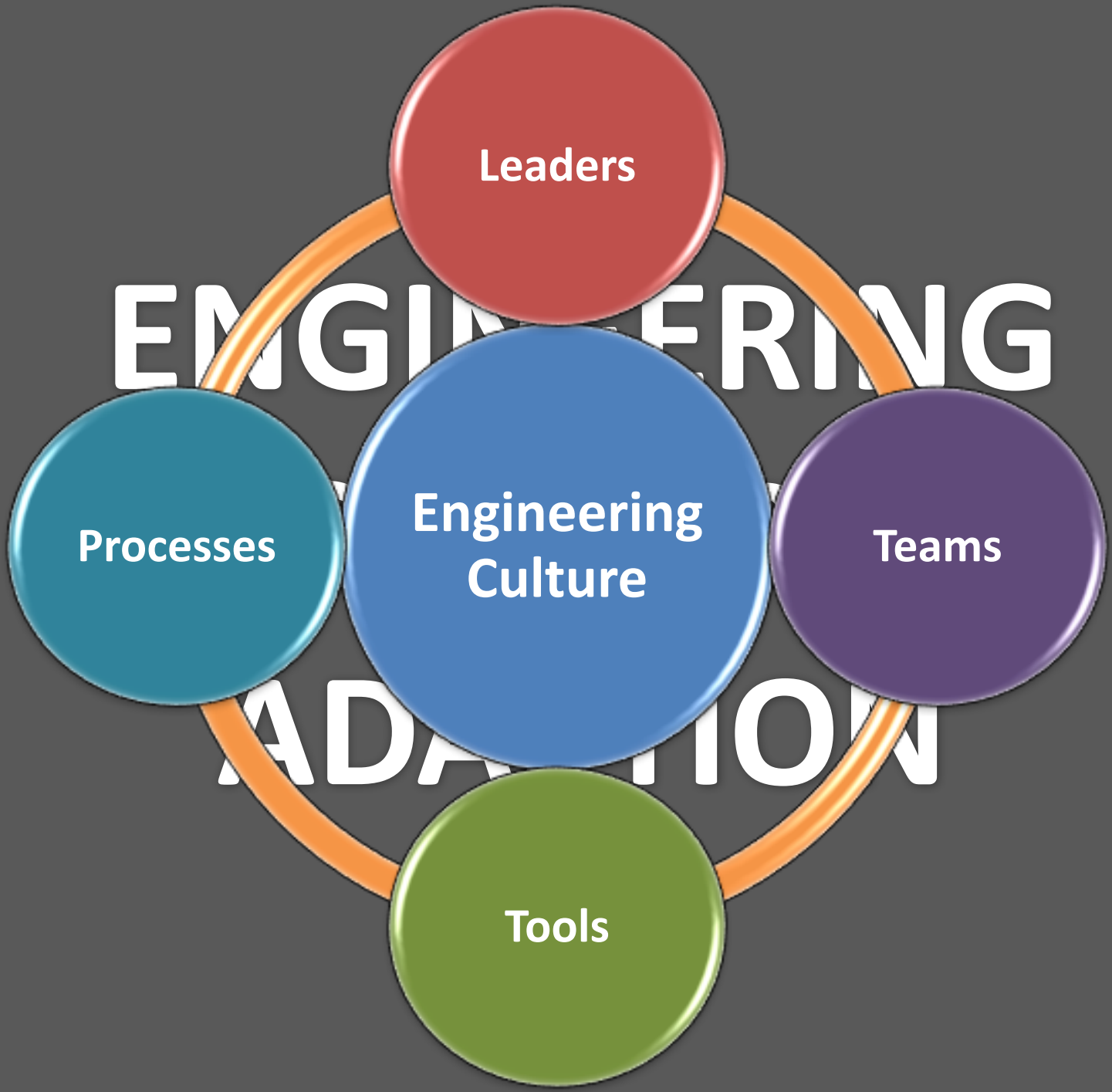
TOTAL STRENGTH	PROPOSED TEAMS
DEV - 26	1 Teams: 6 DEV & 3 TEST
TEST - 12	3 Teams : 5 DEV & 2 TEST
38	1 Team : 5 DEV & 3 TEST

TITANS

SKILLSET	ROUND1	ROUND2	ROUND3
JAVA/J2EE	VS	VS	VS
AM&Q	S	S	S
TERRACOTTA	M	S	S
TEST AUTOMATION	S	S	S
MANUAL TESTING	VS	VS	VS
ORACLE DB	VS	VS	VS

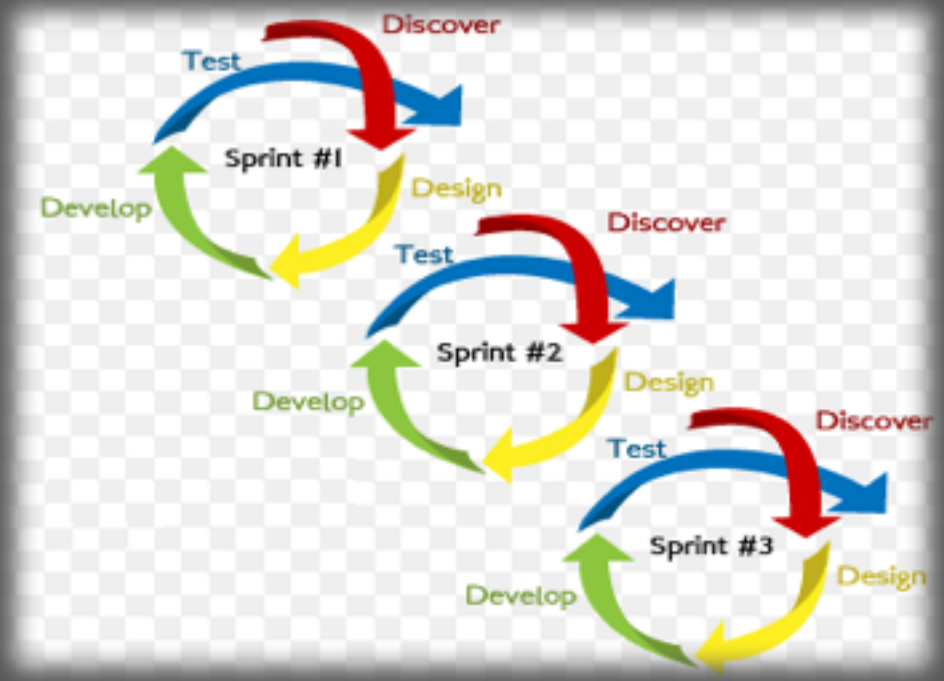
COMPONENTS	ROUND1	ROUND2	ROUND3
PROMOTIONS	M↓	M	M
BONUS	VS	VS	VS
LOYALTY	M	M	M
EDS	N↓	M	M
MESSAGING	S	S	S
WALLET	M	VS	VS

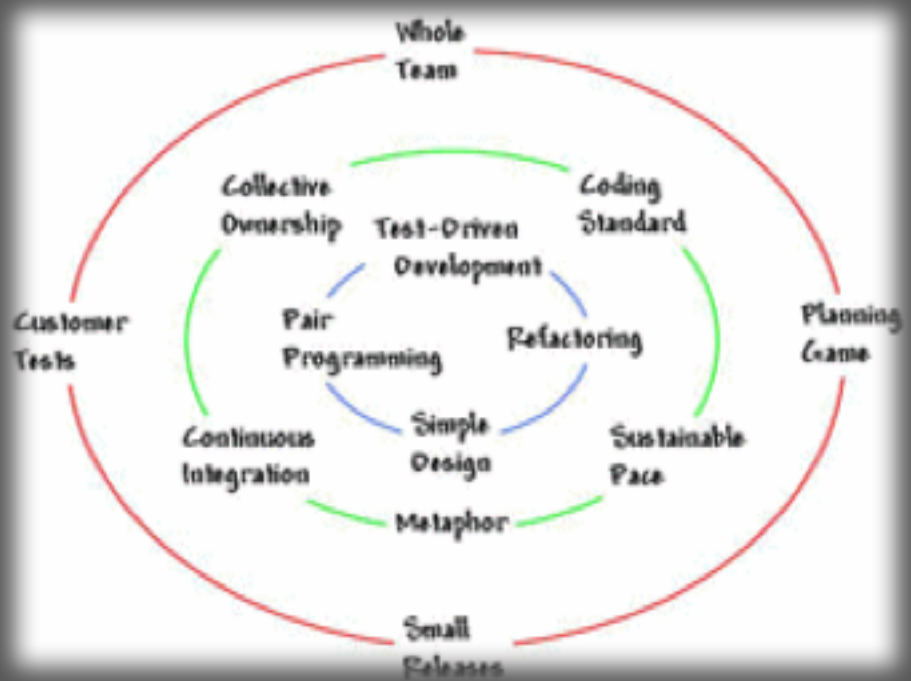
VS- VERY STRONG
S- STRONG
M- MODERATE
N- NILL


Leaders
Processes
Engineering Culture
Teams
Tools

Agile Principles: #5 & #11

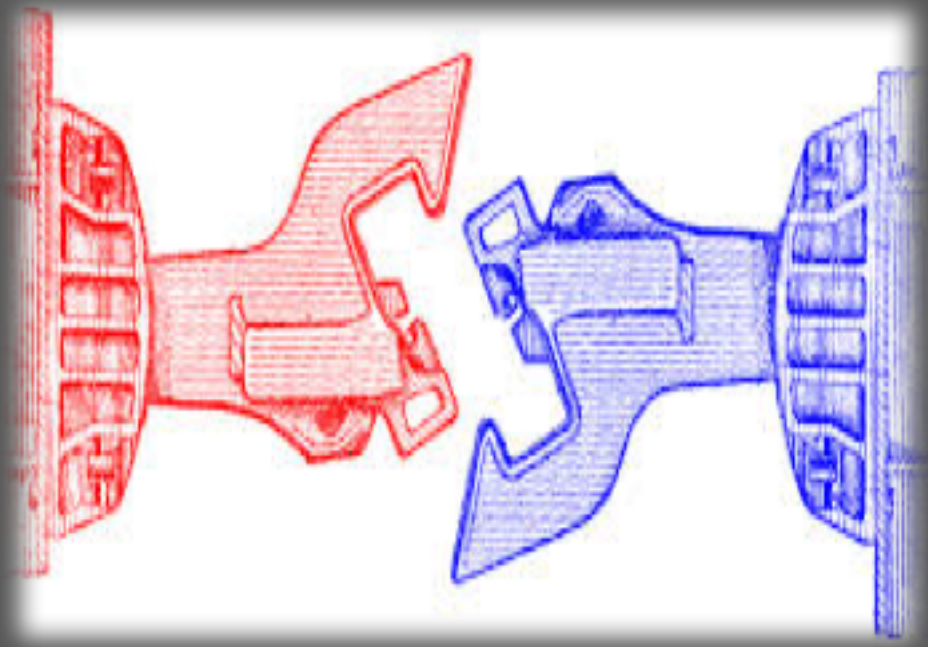
✓Invest in people
✓Technical Coaching
✓Right Tools
✓Training Programs
✓Simplify Processes
✓Trust
✓Open Environment
✓Automation
✓Gemba walks
✓Org level Impediments & Ideas Board
✓Information Radiators

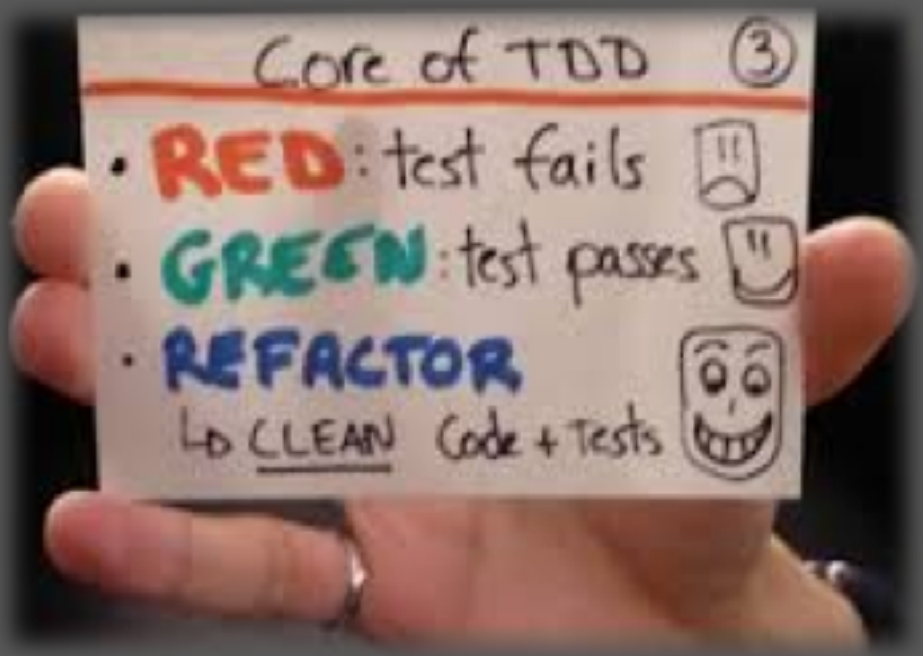

Discover
Test
Sprint #1
Develop
Design
Discover
Test
Sprint #2
Develop
Design
Discover
Test
Sprint #3
Develop
Design


Whole Team
Collective Ownership
Test-Driven Development
Coding Standard
Customer Tests
Pair Programming
Refactoring
Planning Game
Continuous Integration
Simple Design
Sustainable Pace
Metaphor
Small Releases

The Evolution of Coding Standards

Working agreements	Shared values
* Core hours 9 a.m.-4 p.m.	* We don't cut corners
* Daily stand-ups 10 a.m. sharp	* No broken windows
* Done includes testing	* It's OK to disagree
* Respect the build	* We can handle the truth
* When someone asks you for help say "yes"	* Don't assume—ask
* Weekly demo Tues 11am	* When in doubt—write a test
* Customer available 1-3 p.m.	* Crave feedback
	* Check your ego at the door

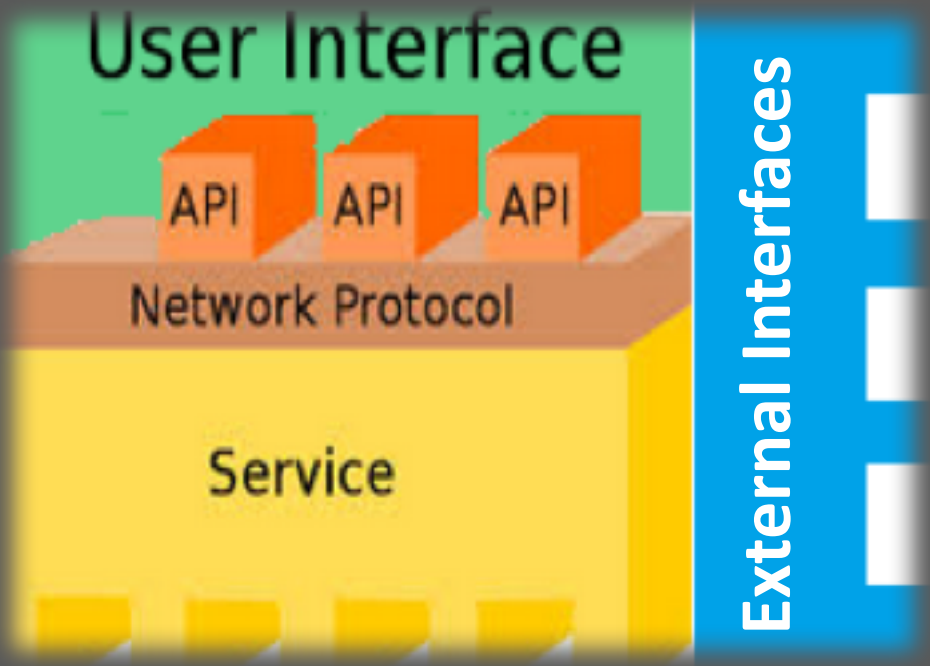


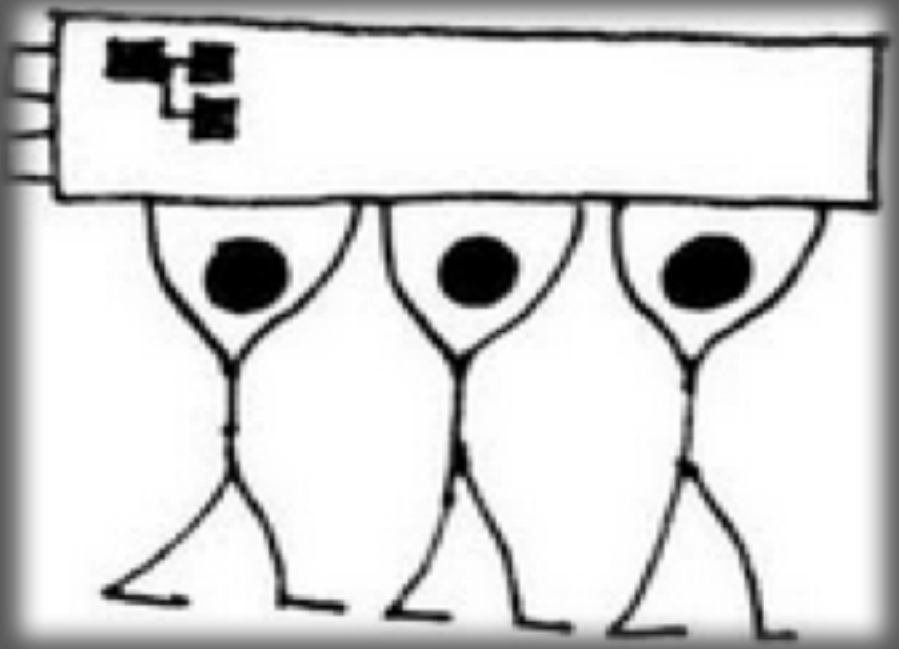


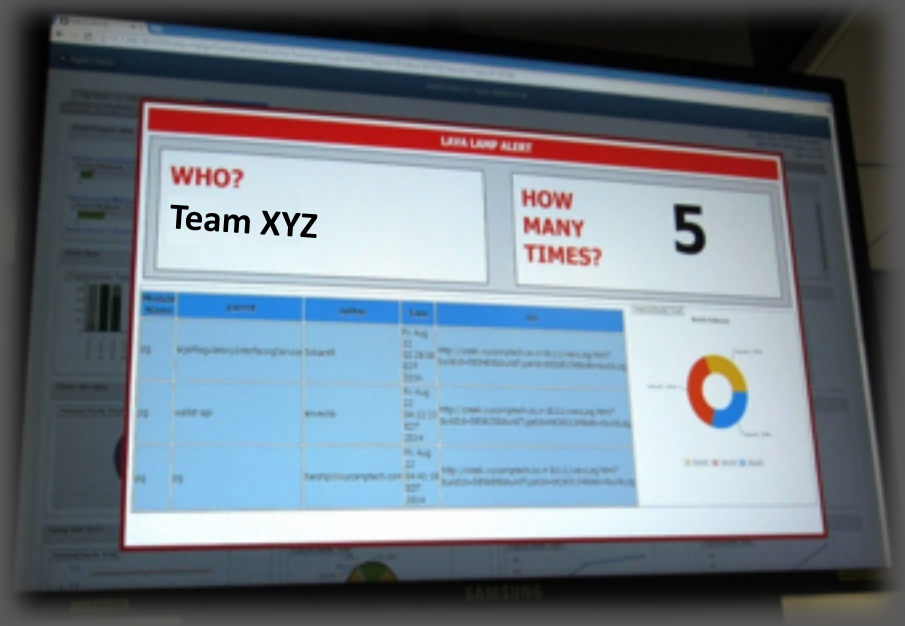
DRY – Don't repeat yourself

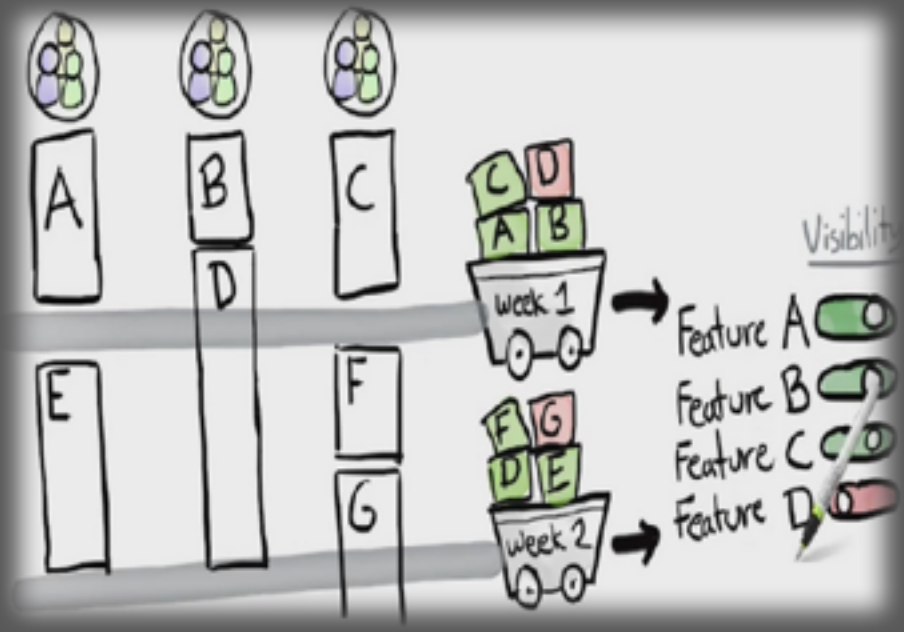
KISS – Keep it simple stupid

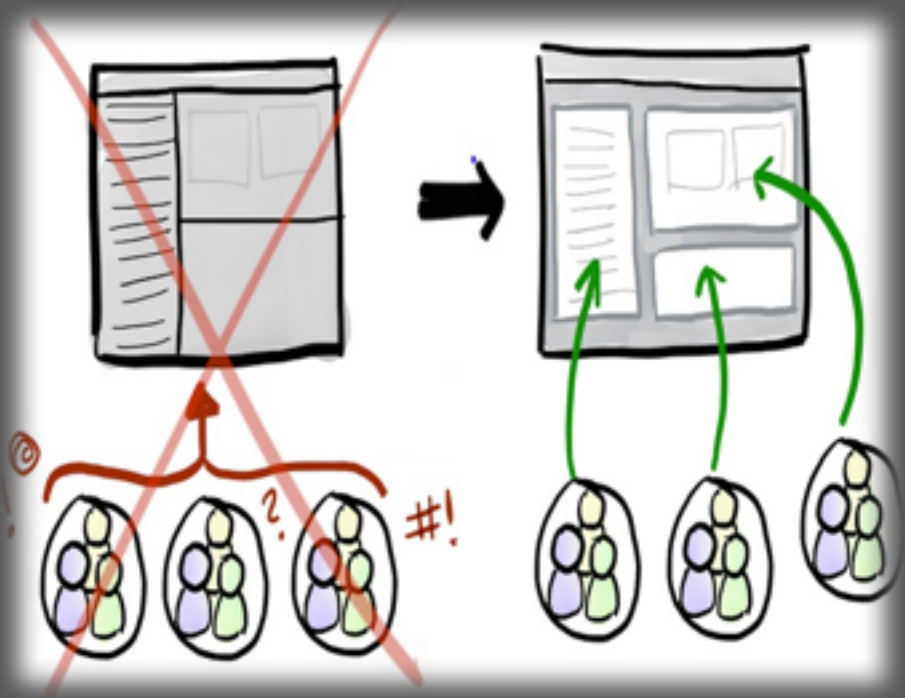
YAGNI-You ain't gonna need it



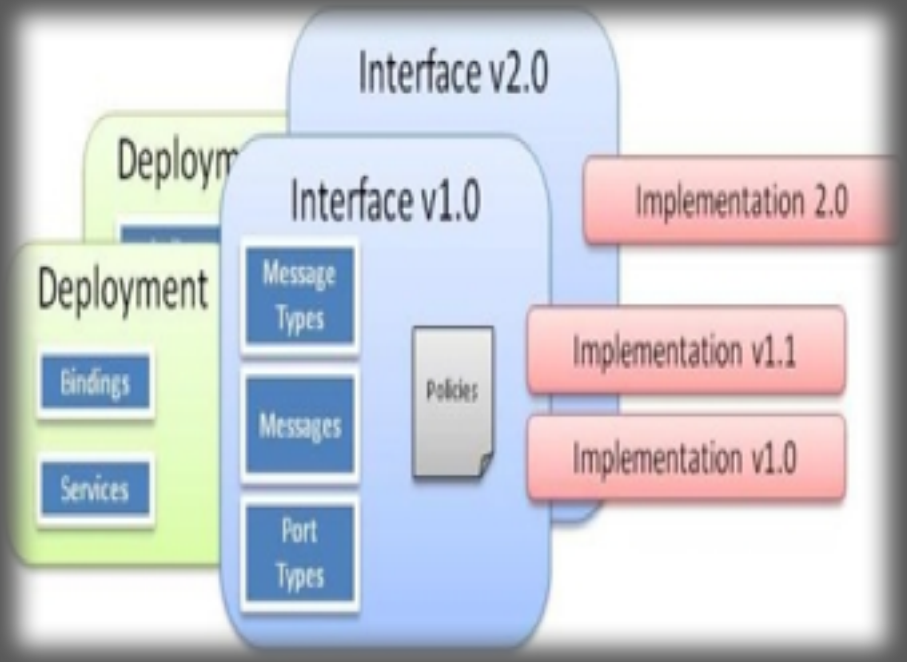


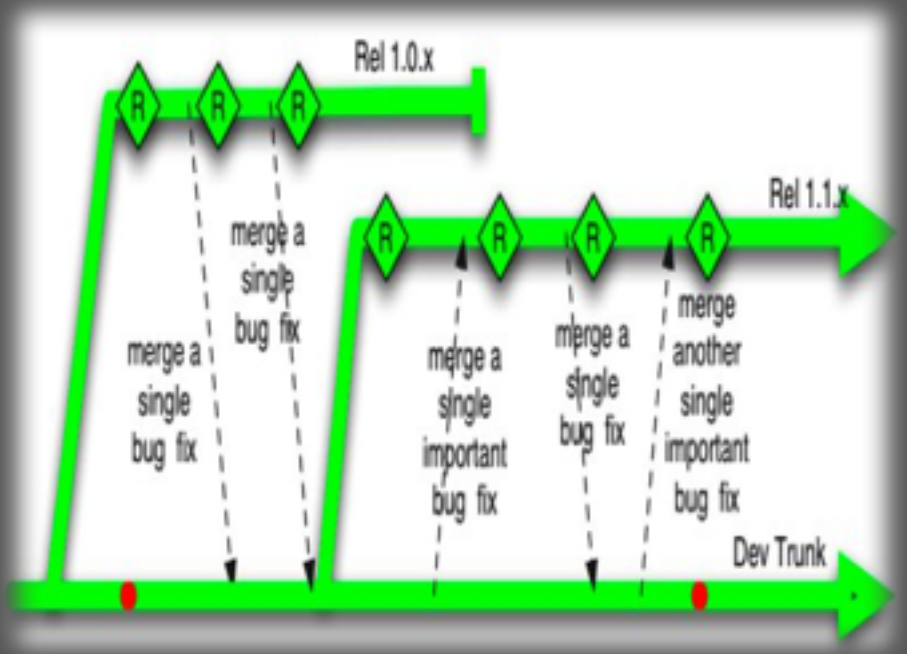

LAVA LAMP ALERT
WHO?
Team XYZ
HOW MANY TIMES?
5

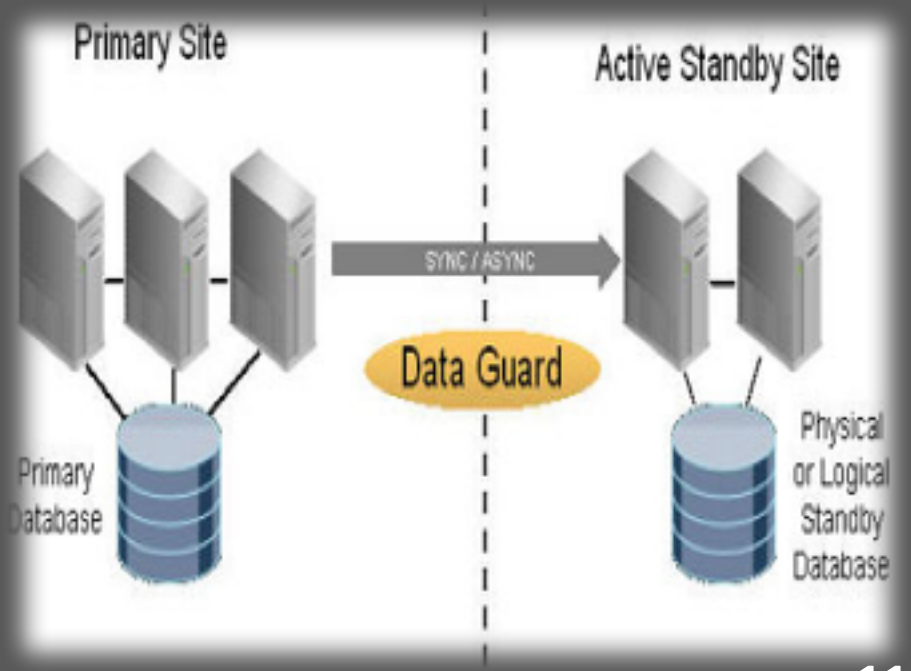

A
B
C
D
E
F
G
week 1
week 2
Feature A
Feature B
Feature C
Feature D

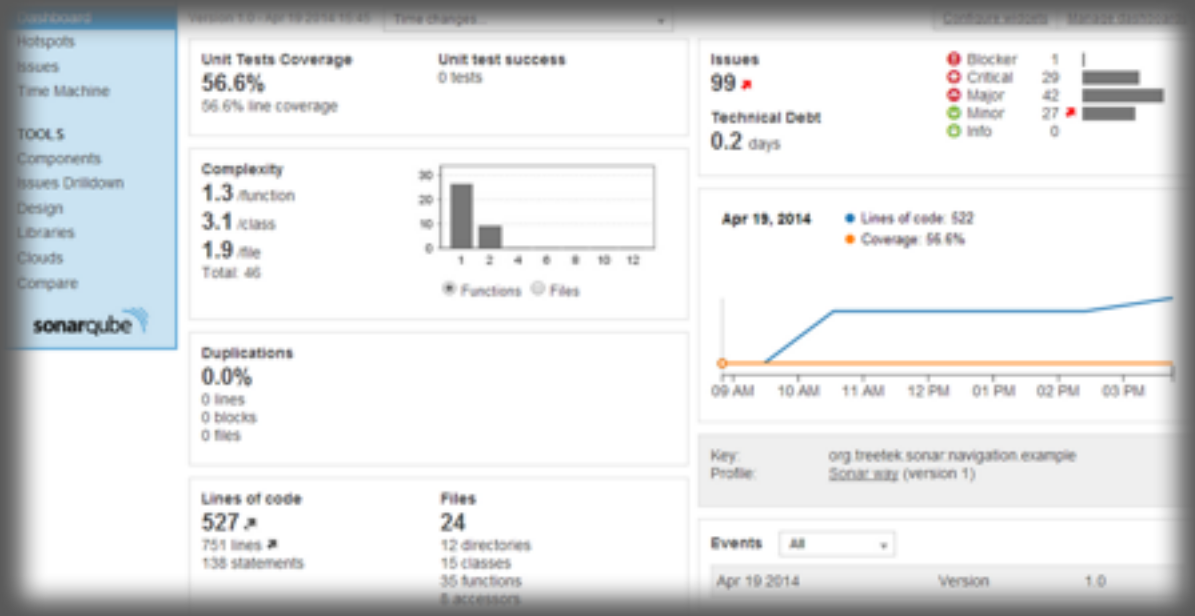

?
#!

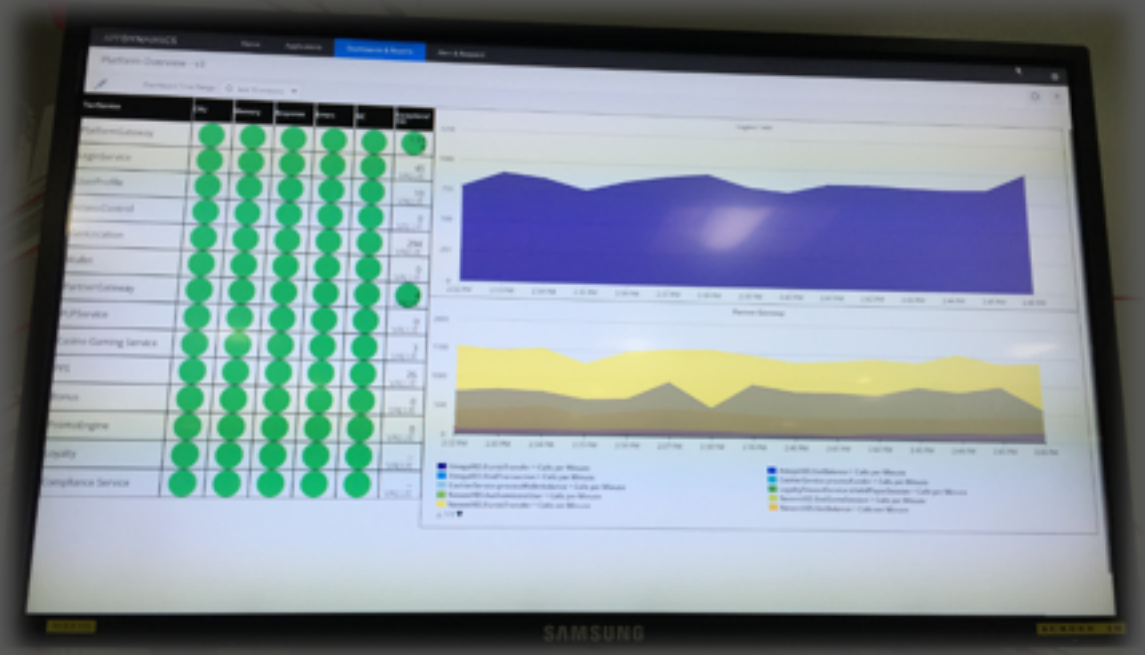
Micr
Services


Interface v2.0
Deploym
Interface v1.0
Implementation 2.0
Deployment
Message Types
Bindings
Policies
Implementation v1.1
Messages
Implementation v1.0
Services
Port Types


Rel 1.0.x
R
R
R
merge a single bug fix
merge a single bug fix
Rel 1.1.x
R
R
R
R
merge a single important bug fix
merge a single bug fix
merge another single important bug fix
Dev Trunk


Primary Site
Active Standby Site
SYNC / ASYNC
Data Guard
Primary Database
Physical or Logical Standby Database


Hotspots
Issues
Time Machine
TOOLS
Components
Issues Drilldown
Design
Libraries
Clouds
Compare
sonarqube
Unit Tests Coverage
56.6%
56.6% line coverage
Unit test success
0 tests
Issues
99
Technical Debt
0.2 days
Blocker 1
Critical 29
Major 42
Minor 27
Info 0
Complexity
1.3 /function
3.1 /class
1.9 /file
Total: 46
Functions
Files
Apr 19, 2014
Lines of code: 522
Coverage: 56.6%
09 AM
10 AM
11 AM
12 PM
01 PM
02 PM
03 PM
Duplications
0.0%
0 lines
0 blocks
0 files
Key: org.treetek.sonar.navigation.example
Profile: Sonar way (version 1)
Lines of code
527
751 lines
138 statements
Files
24
12 directories
15 classes
35 functions
8 accessors
Events
All
Apr 19 2014
Version
1.0


SAMSUNG

CHALLENGES

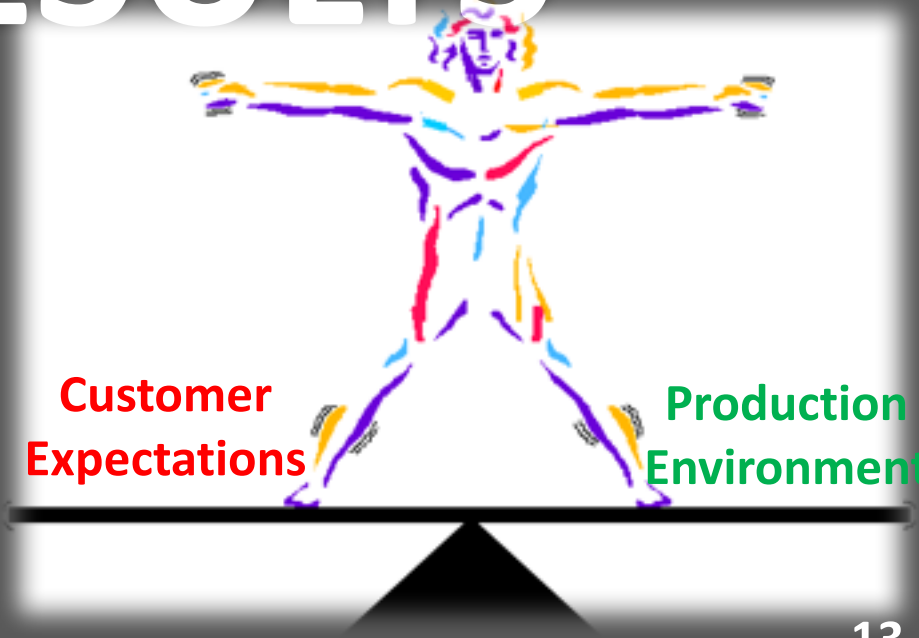
- ✓ Mindset change was not easy
- ✓ It took some time to get stable
- ✓ Legacy code base
- ✓ Task switching confusion
- ✓ Pair programming productivity
- ✓ Implementing Single Trunk approach
- ✓ Stability in test environments
- ✓ Automation took time

WE DELIVER!
WE DELIVER!
WE DELIVER!
WE DELIVER!
WE DELIVER!
WE DELIVER!
WE DELIVER!

OPEN
24
HOURS

THE RESULTS

Technical Excellence
FEATURE TEAMS


Customer Expectations
Production Environment

Thank you

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+91-9848032144

vkbandaru@yahoo.com

www.vijaybandaru.com