

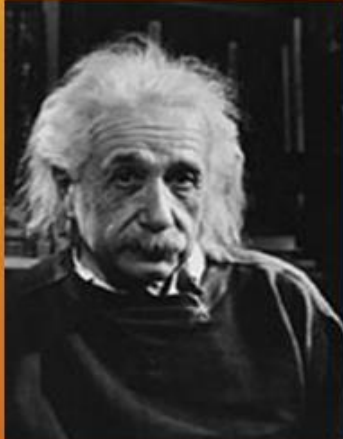
Power Of Measurement To Attain True Agility

Meetu Arora

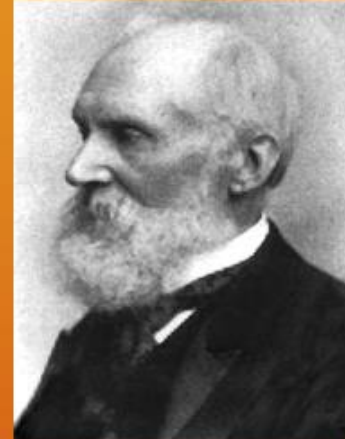
Sr. V.P. Quality Assurance

Info Edge India Ltd (Naukri.com)

**"Whenever you
can, count" – Sir
Francis Bacon**



**"If it can't be
expressed in
figures, it is not
science. It is
opinion." –
Robert Heinlein**



**"If it moves it
can be
measured, and if
it can be
measured it can
be changed." –
Doug Pratt**



**"Not everything
that counts can
be counted and
not everything
that can be
counted counts."
– Albert Einstein**



**"If you cannot
measure it, you
cannot control
it." – Lord Kelvin**





One accurate
measurement
 is worth 
a thousand
expert opinions

Image Source: <http://quoteaddicts.com/topic/measurement-quotes/>

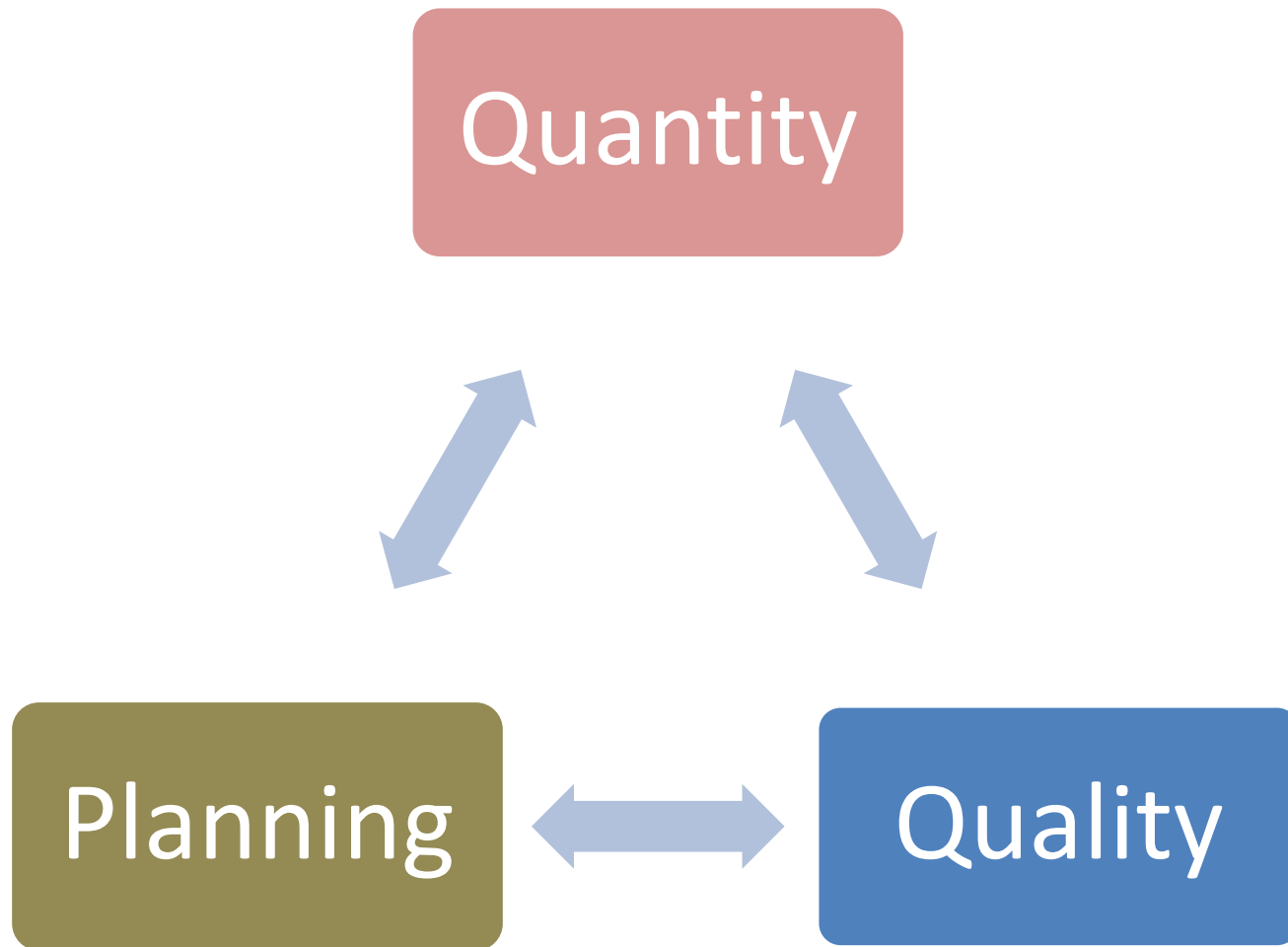
MISSION

Create “Delivery
Machine” for faster
execution of projects
with Better Quality

Our Chosen Path
XPSCRUMBAN

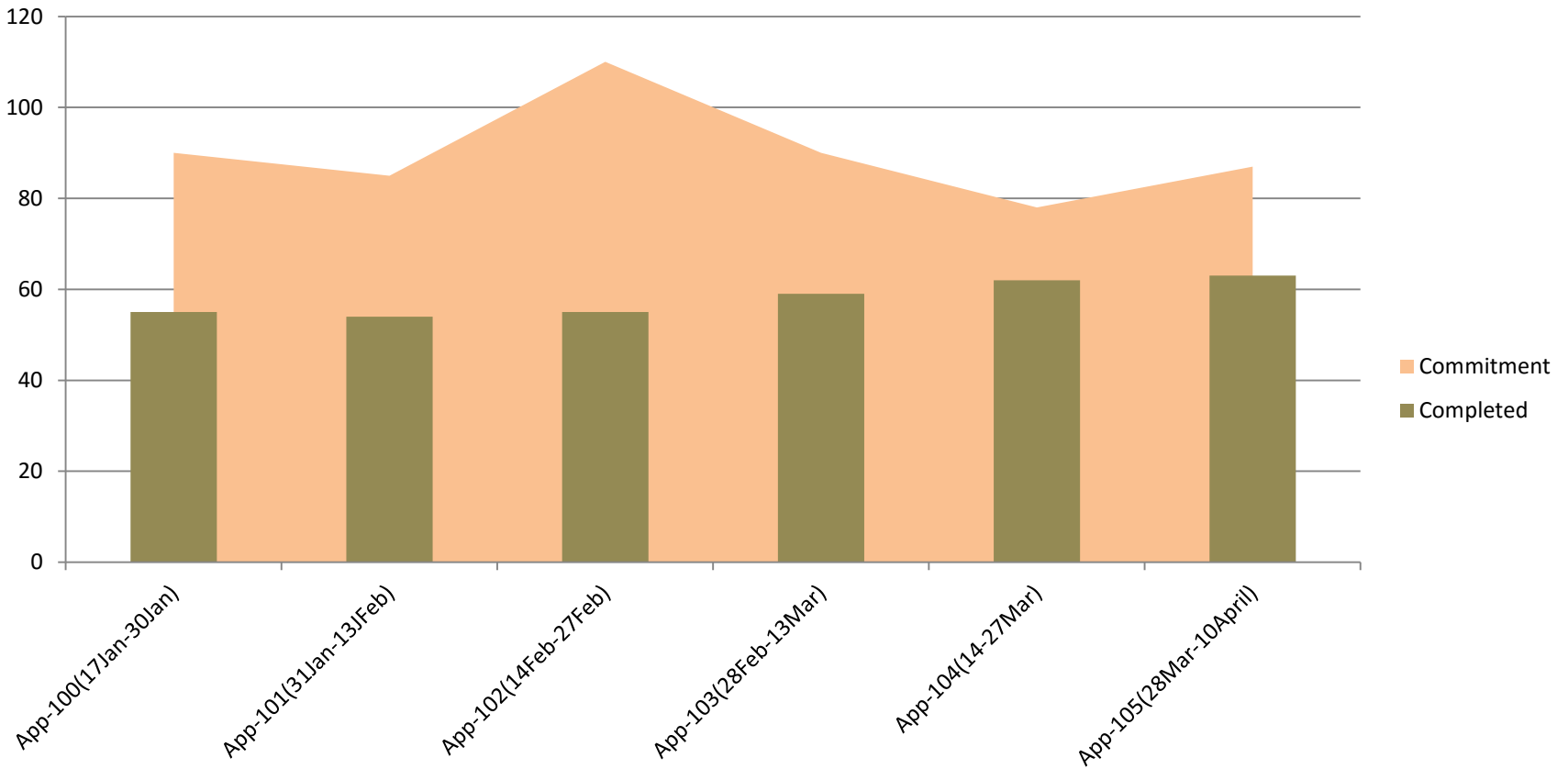
Change all
Measurements from
ME to WE

Our Measurement Mantra



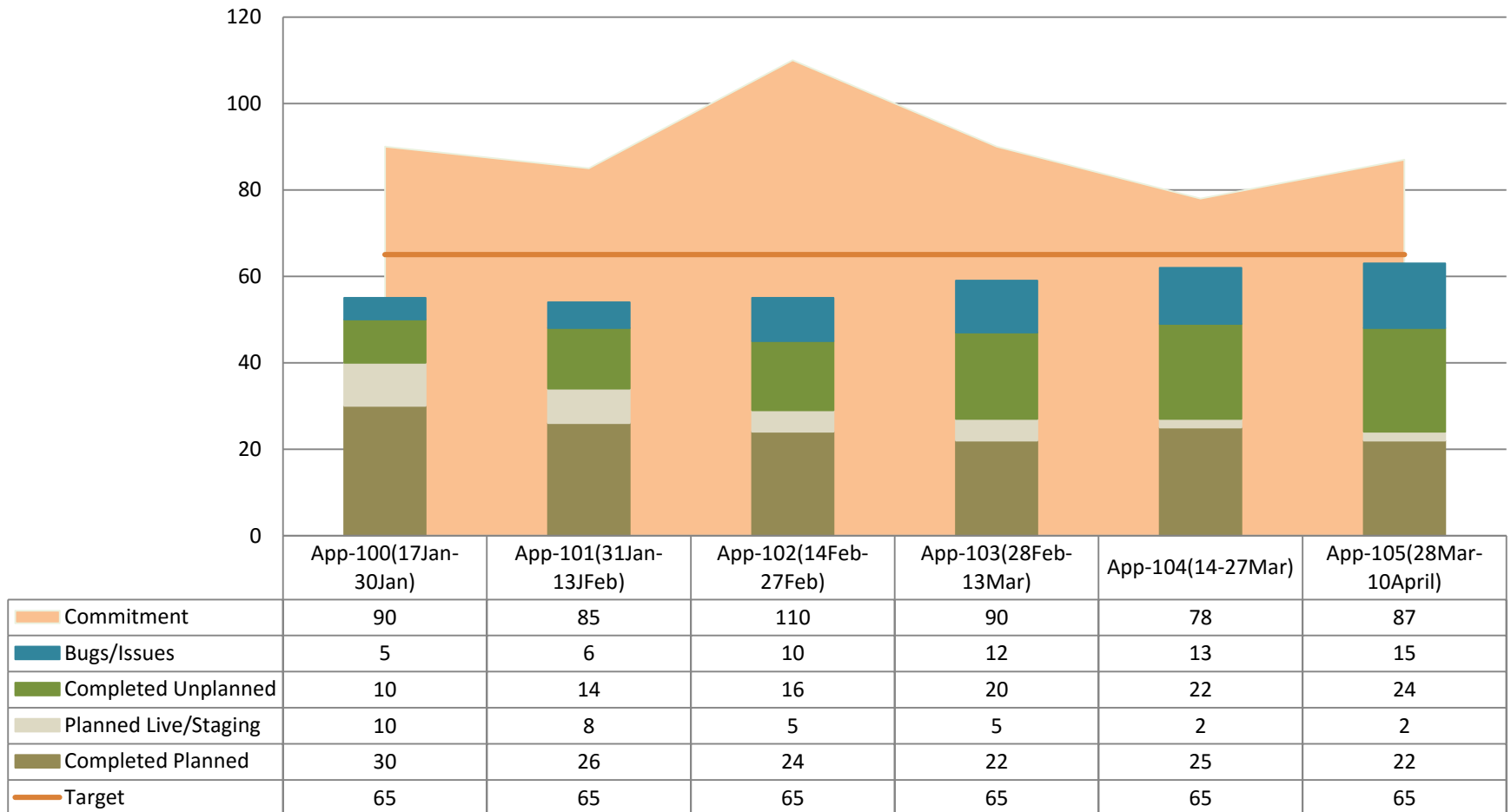
Better Planning for Faster Execution

Velocity Chart



Better Planning for Faster Execution

Velocity Report



Learnings

- Too much getting planned BUT Too little is getting done
 - Predictability is poor due to last minute planning leading to lack of analysis
 - Inadequate intra team dependency management
- Bugs/Issues increasing
 - Too many unknowns due to last minute planning
- Unplanned Stories getting added to running sprint increasing
 - Inadequate planning and clarity
- Stories not going to production
 - Stories are not actually following INVEST
 - Story breakage pattern is not supporting go live

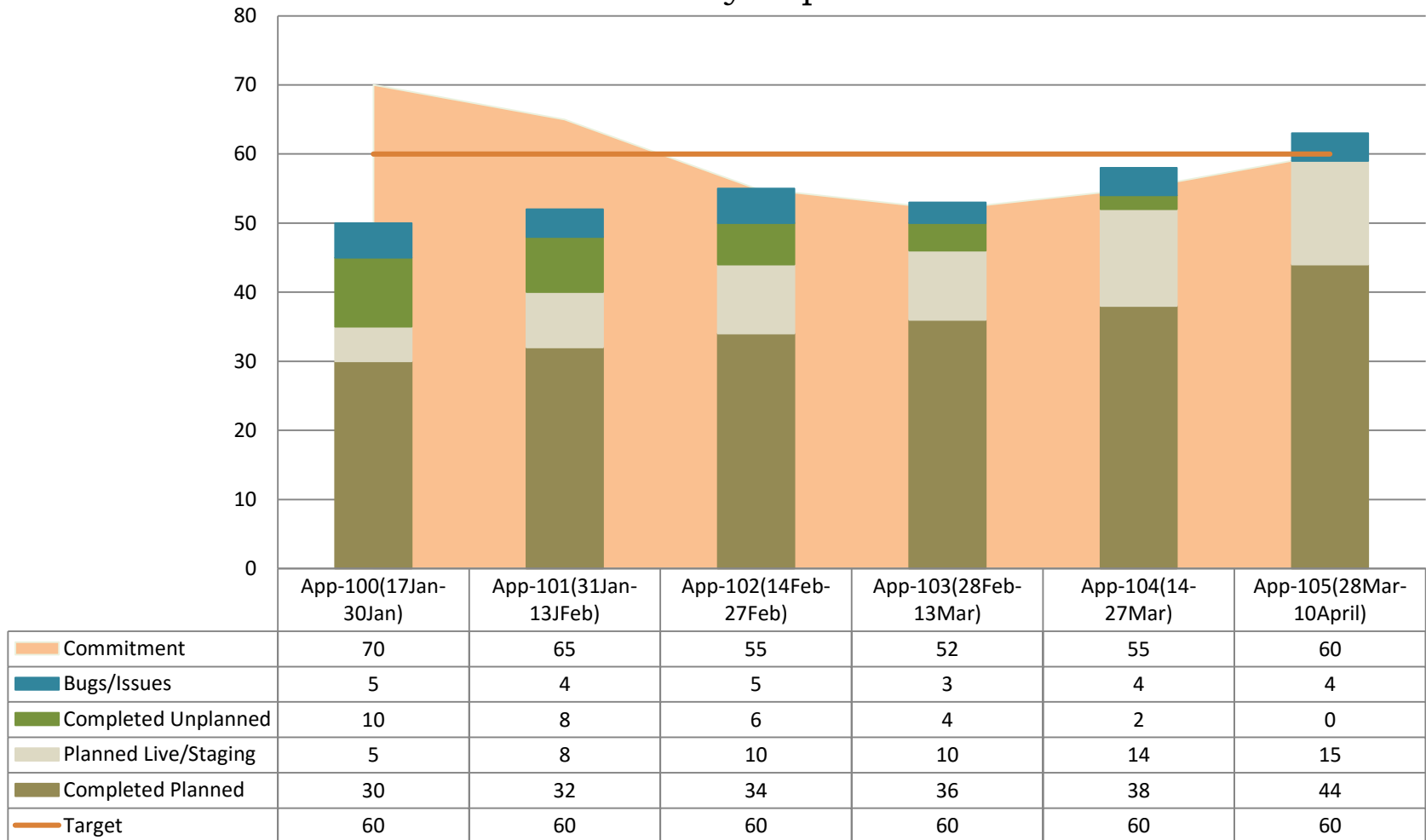
Adopted Changes

- Product backlog grooming is done one iteration in advance
- Tester, developer, product owner, architect are all part of the backlog grooming
- Entire scrum team focuses on defining what and how
- Stories breakage to follow INVEST
- Testers contribute test cases upfront during this period and add them to the user stories in form of acceptance criteria or alternate paths
- We measure planning efficiency
 - This effectively ensures that team pushes back unplanned items and focuses more towards completion of planned stories
 - This encourages product managers to work towards providing stories in planned fashion ,up ahead in time.

Results

- Velocity: 25% increase
- 30 % Planning Efficiency improvement

Velocity Report



Better Quality for Faster Execution

- Defect Introduction points
 - Concept
 - Coding
 - Staging
 - Post Live
- Nature of Defects
 - Functional
 - Integration
 - GUI Level
- Ways of catching defects
 - Test Automation
 - Scheduled Test Execution

Build Quality Meter

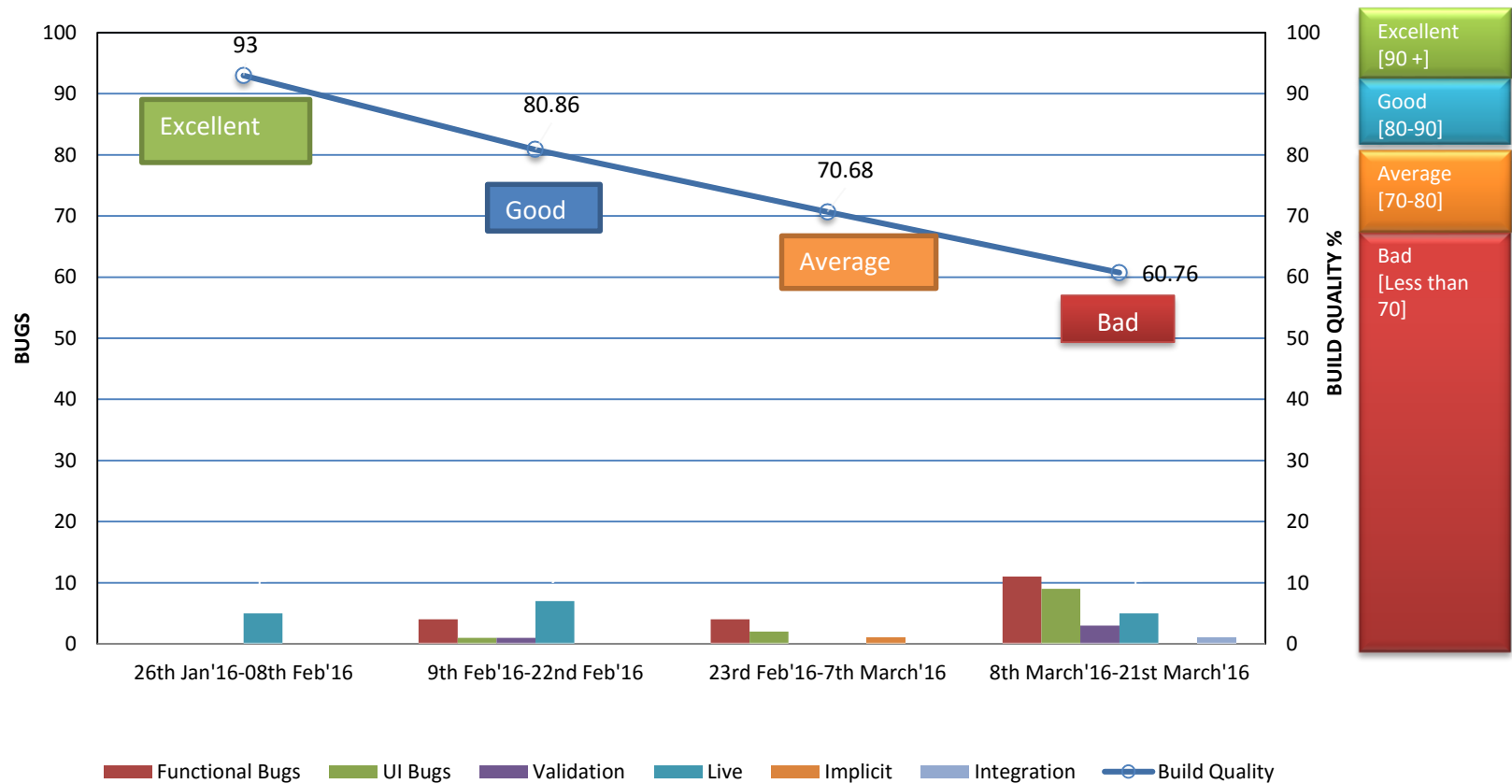


Defect Introduction Points: Product design, Incomplete requirement, Insufficient impact analysis, Dead on Arrival, Inadequate testing, StagingDiscovery, PostLive

Nature of Defects: Functional, GUI, Implicit, Validation, Environment, Configuration, Integration

Build Quality Report

Build Quality Trend



Learnings

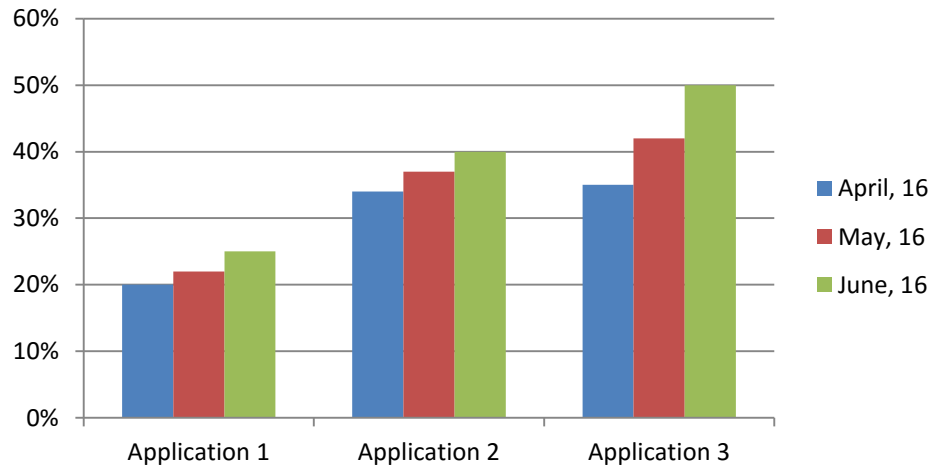
- Lack of Focus
- Lack of RCA
- Insufficient impact analysis
- Lack of testing at the time of development
- Lack of awareness regarding Implicit requirements

Adopted Changes

- ❑ Backlog grooming to include technical design discussions
- ❑ Upfront availability of test cases in form of acceptance criteria as part of story
- ❑ Testing Throughout towards Defect Prevention
 - ❑ Unit level testing
 - ❑ Peer Level Testing
 - ❑ Code reviews
 - ❑ Automatic UT execution using Jenkins
 - ❑ Parallel Functional Automation testing
 - ❑ Automatic FT execution using Jenkins

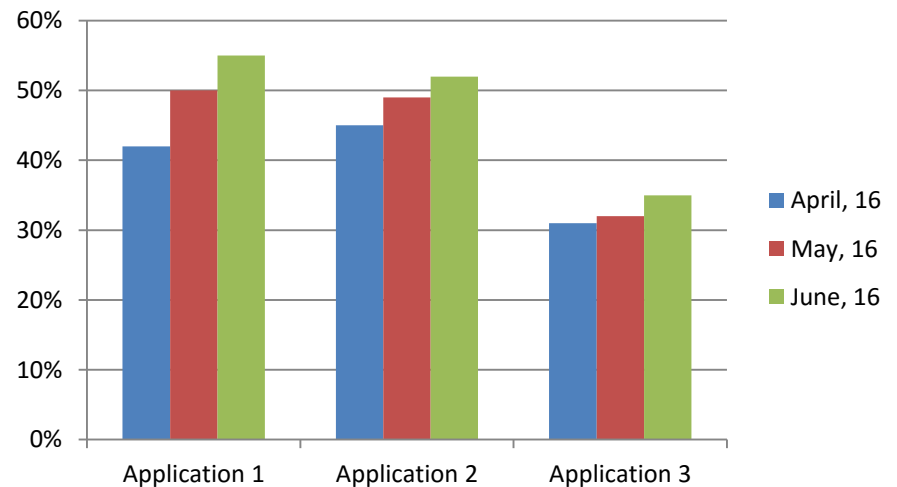
Better Quality for Faster Execution

UT Coverage



Focus on getting
adequate Automation
Coverage

FT Coverage



Better Quality for Faster Execution

Focus on ensuring Automated Tests Execution

- Jenkins Usage for automated execution of UT & FT
- Daily automated report is published back to the team

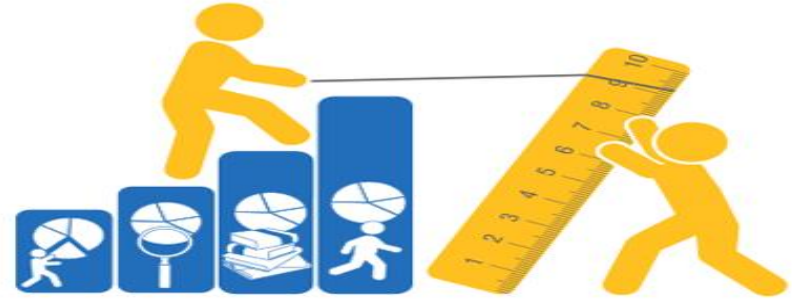
UT/FT Suites Daily Execution Summary					
	01-May-16	02-May-16	03-May-16	04-May-16	05-May-16
Jenkins Job 1	100%	95%	99%	100%	100%
Jenkins Job 2	98%	Build Aborted	97%	80%	98%
Jenkins Job 3	100%	98%	100%	99%	98%
Jenkins Job 4	99%	97%	Build Aborted	99%	93%
Jenkins Job 5	93%	98%	98%	100%	99%

Better Quality for Faster Execution

Focus on Bug Causal Analysis from Coverage Perspective

- Bugs reviewed to analysis whether UT and FT was done or not
- If done what was the cause of bug slippage
 - Inadequate coverage
 - Execution
- Rosters for BCA and Automated Test Failure Analysis

Results



- 15% Build quality improvement
- Post live defect seepage: 50% reduction
 - Test Cases: 10K increase
 - Automation Coverage: 44% increase
 - Automation Scripts Execution time: 20% reduction
 - Automation flakiness: 20% reduction

Key Take Away's

- Defining the “Right Metric”
- Measure, Review, Improve
- Multiple Metrics to cover multiple angles
- Qualitative Reviews to prevent data corruption



Thank You

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