VERIFICATION & VALIDATION DURING THE SOFTWARE DEVELOPMENT LIFE CYCLE

PRESENTERS:

ROXANA ONAC

AGENDA

- **INTRODUCTION**
- **QUALITY ASSURANCE & QUALITY CONTROL (QA & QC)**
- **QUALITY MANAGEMENT SYSTEMS (QMS)**
- **CONTINUOUS IMPROVEMENT (CI)**
- **REQUIREMENTS/ DESIGN**
- **TEST PLANNING**
- **TEST DESIGN**
- **TEST EXECUTION**
- **TEST REPORTING**

WHAT DO YOU KNOW ABOUT ENDAVA?

WE DELIVER GLOBAL TRANSFORMATION

OFFICES

CLUJ-NAPOCA	COPENHAGEN	DENVER	FRANKFURT
51 Al. Vaida Voevod St.	UNIVATE, Njalsgade 76	2420 17th St.	Eschersheimer Landstraße 14

PHILOSOPHY

OUR PHILOSOPHY IS SIMPLE

"We focus on helping people succeed. The people who work for us, the people who engage with us, and the people who use the systems and applications we design, build, and operate."

JOHN COTTERELL, CHIEF EXECUTIVE, ENDAVA

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BE MORE

we're prodigies and hard workers, peace lovers and fighters,
we're designers and project managers, automation testers and architects,
we're leaders and rebels, skaters and bikers,
but above all, we are people who believe they can be more

See Videos ›

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OUR AREA OF EXPERTISE

QA & QC

QUALITY ASSURANCE AND QUALITY CONTROL

WHAT IS THE DIFFERENCE?
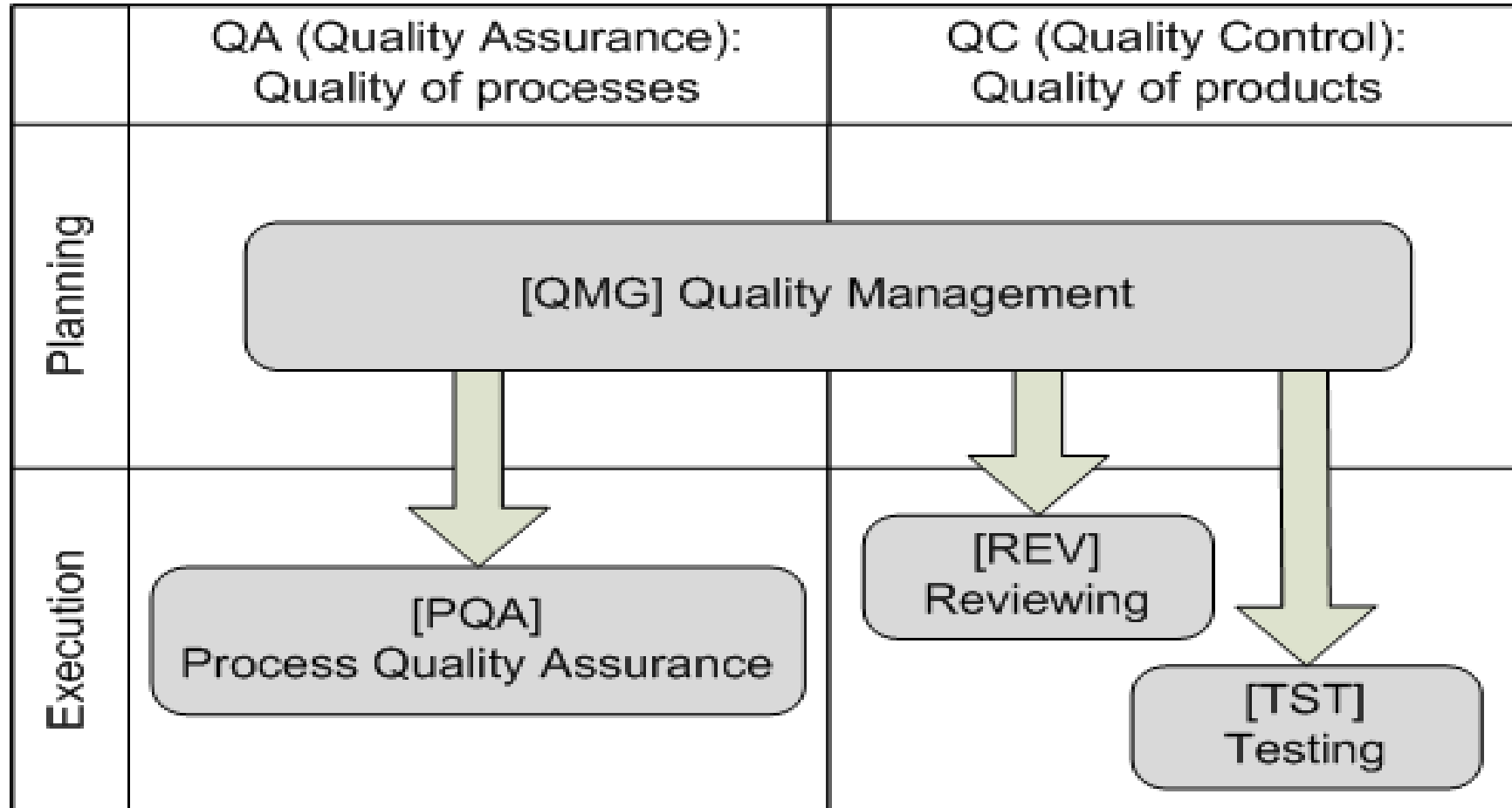
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QA & QC

QMS

A QUALITY MANAGEMENT SYSTEM (QMS) IS A SET OF **POLICIES**, **PROCESSES** AND **PROCEDURES** REQUIRED FOR **PLANNING** AND **EXECUTION** (PRODUCTION/DEVELOPMENT/SERVICE) IN THE CORE BUSINESS AREA OF AN **ORGANIZATION**

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QMS

QMS

MEASURING QUALITY

- **IF YOU CANNOT DEFINE IT, YOU CANNOT ACHIEVE IT**
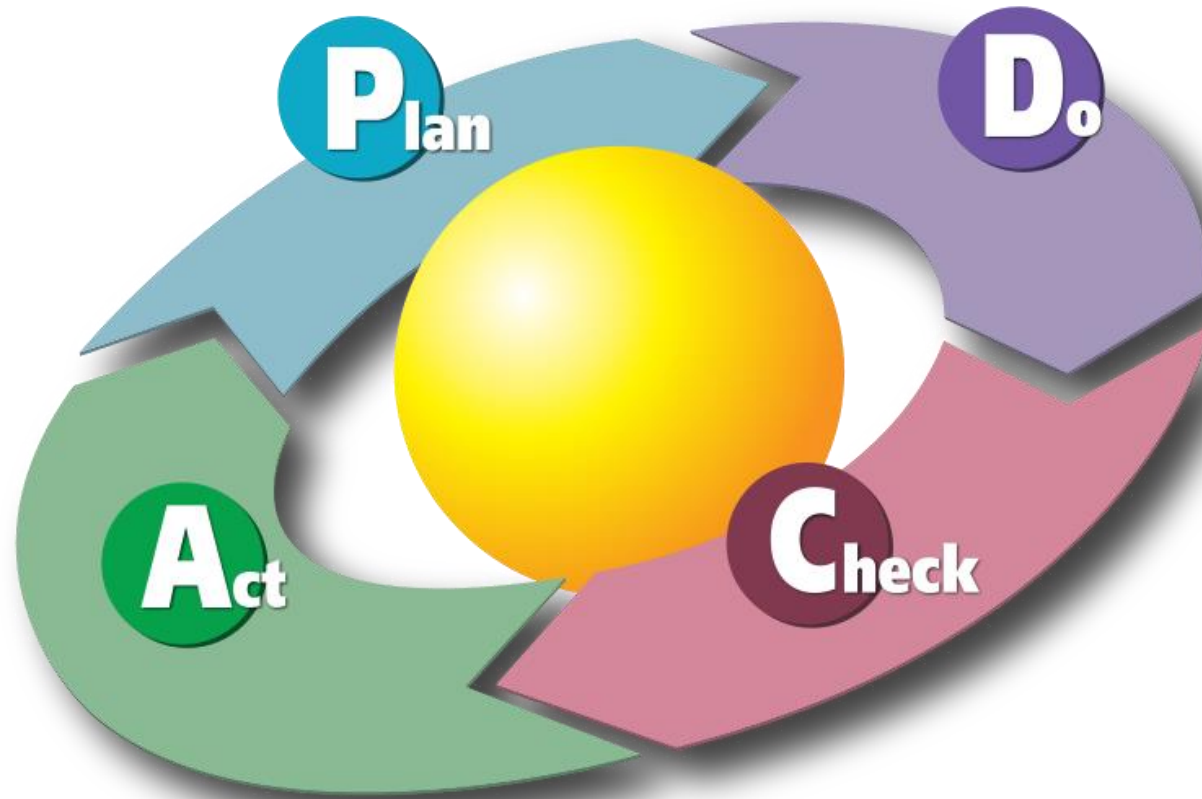

- **IF YOU CANNOT MEASURE IT**

  You do not know how you are progressing

  You do not know when you have arrived

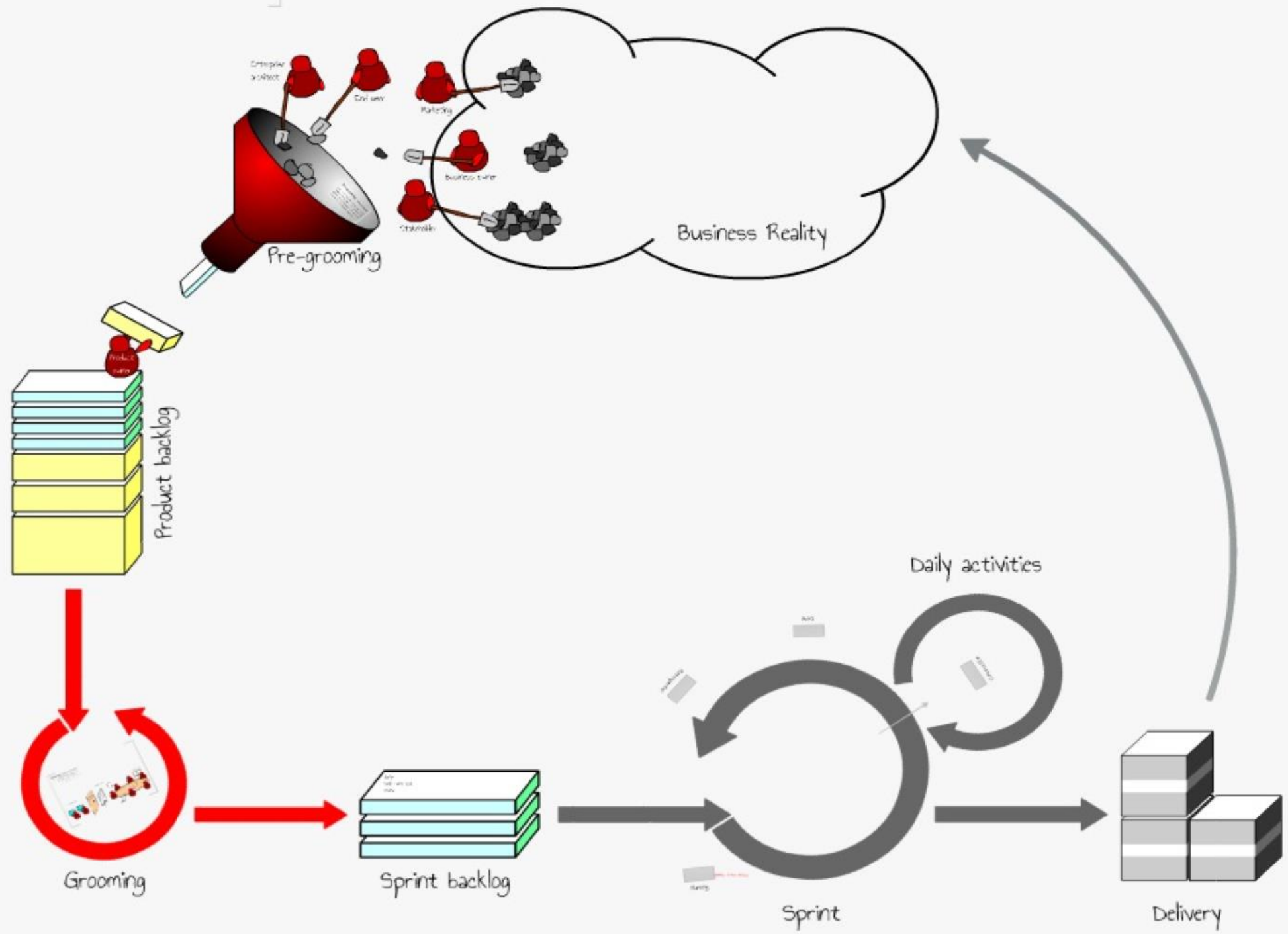 You cannot demonstrate it

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CI

CI

MAIN DRIVER WAS THE VERY DIVERSIFIED WAY OF WORKING:

- Multiple technologies
- Multiple methodologies
- Various level of client control
- Locations
- Company growth, etc

MAIN GOAL IS TO ENSURE COMPANY-WIDE SPREAD OF

- Lessons learned
- Best practices
- Ensure a uniformed way-of-working between projects

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Pre-grooming

Business Reality

Product backlog

Grooming

Sprint backlog

Daily activities

Sprint

Delivery

SUMMARY

- QA & QC GIVE THE **BEST RESULTS** TAKEN TOGETHER

- **CUTTING CORNERS** IS NOT AN OPTION

- **DELIVERING QUALITY IS EVERYBODY'S JOB**

- YOU HAVE TO DEFINE **"WHAT IS QUALITY"** IN ORDER TO ACHIEVE IT

- **CONTINUOUS IMPROVEMENT**

- **QA PROCESSES** MUST BE PRESENT IN EACH STAGE OF THE **DEVELOPMENT LIFECYCLE**
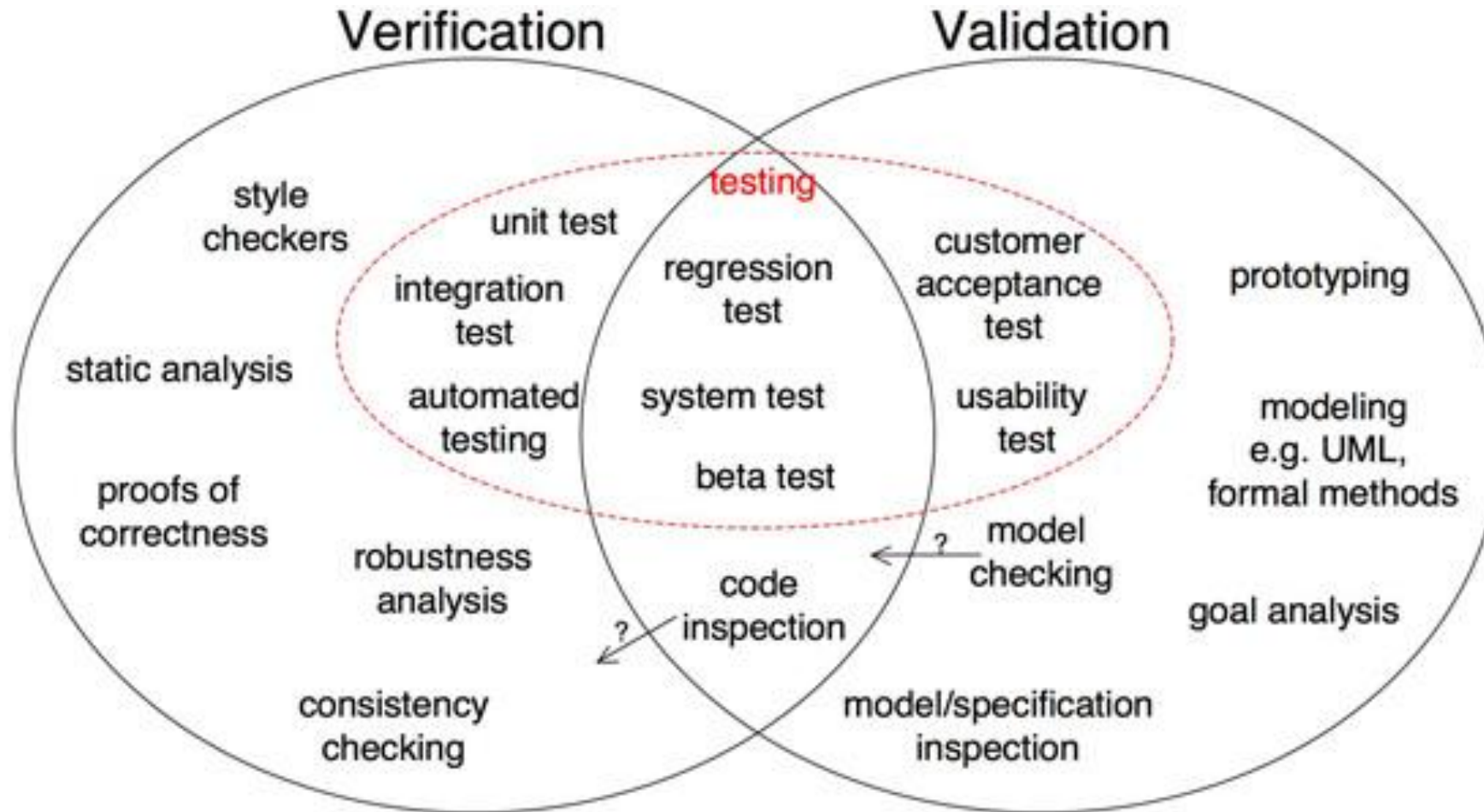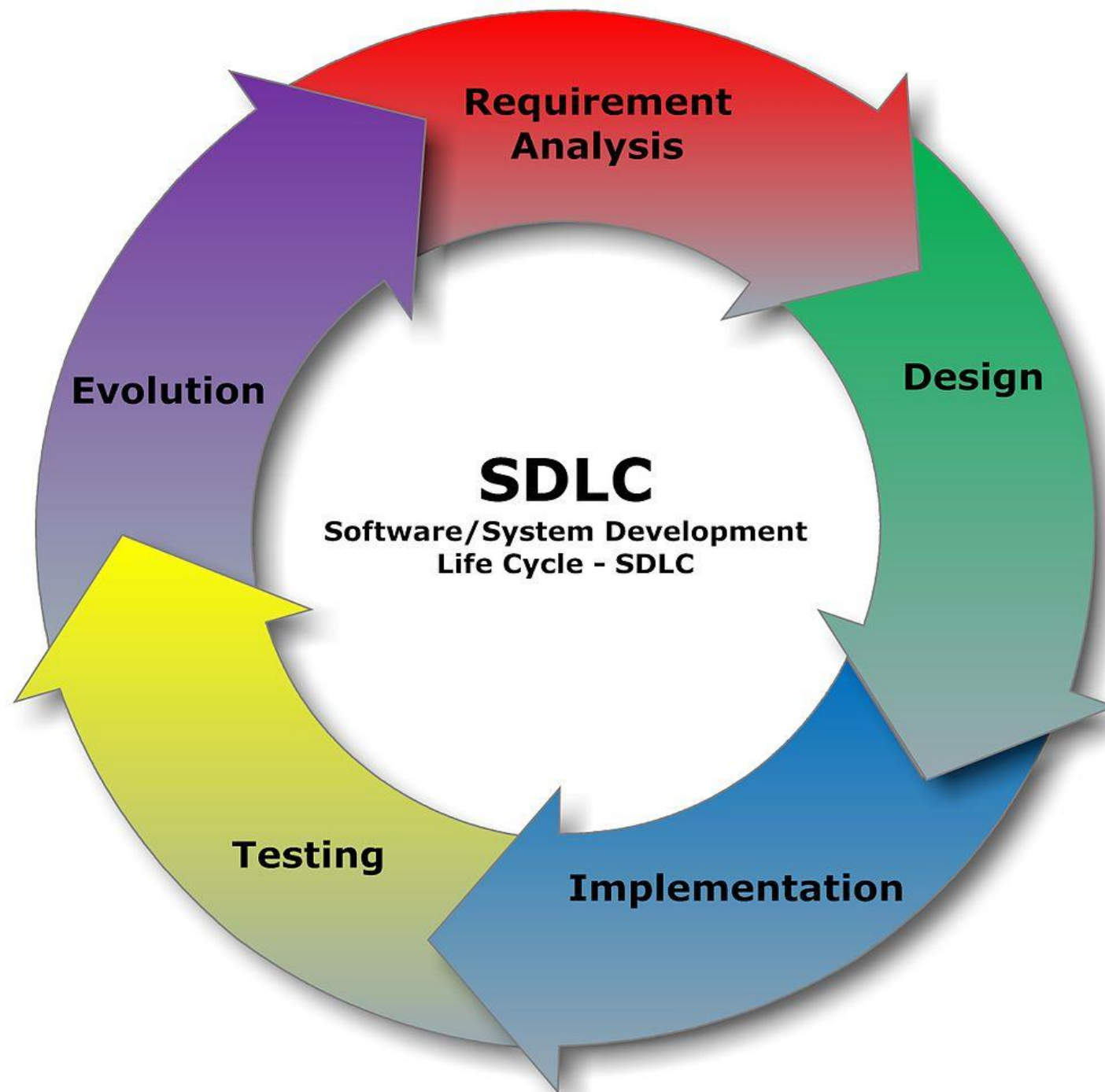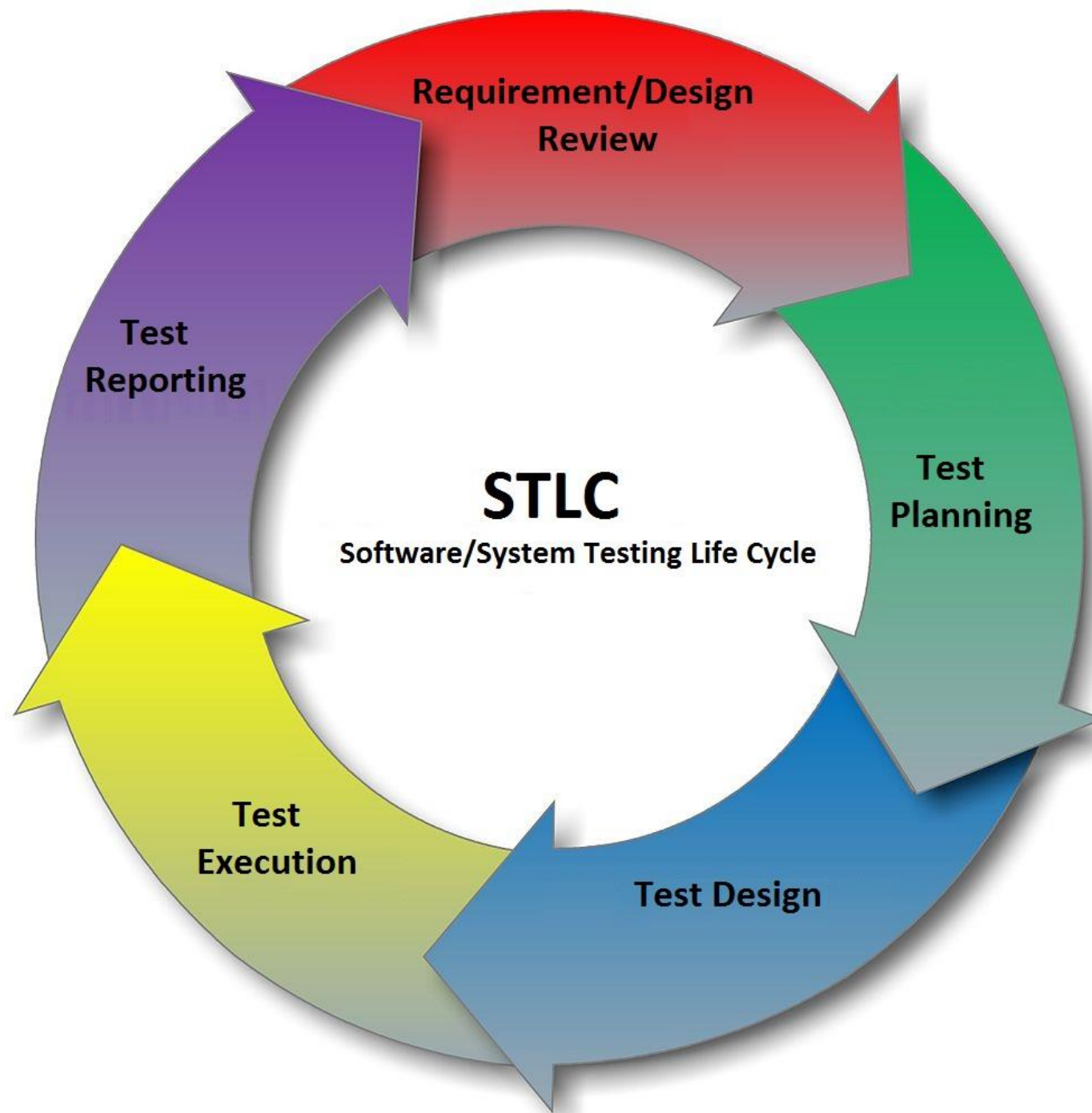
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ASK QUESTIONS

WHY IS SOFTWARE TESTING NECESSARY?

VERIFICATION & VALIDATION

SDLC

Software/System Development
Life Cycle - SDLC

Requirement
Analysis

Design

Implementation

Testing

Evolution

STLC

Software/System Testing Life Cycle

Requirement/Design Review

Test Planning

Test Design
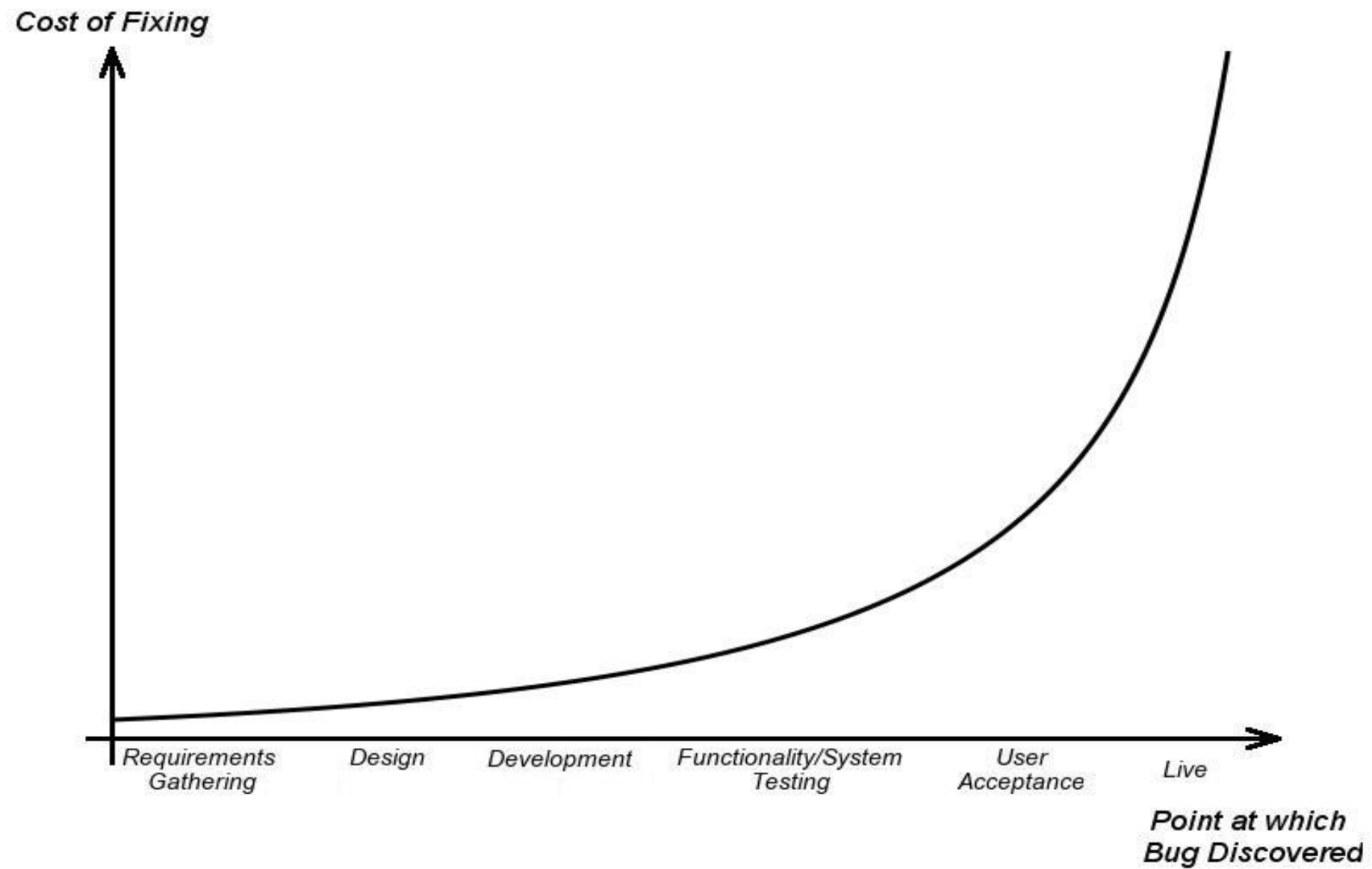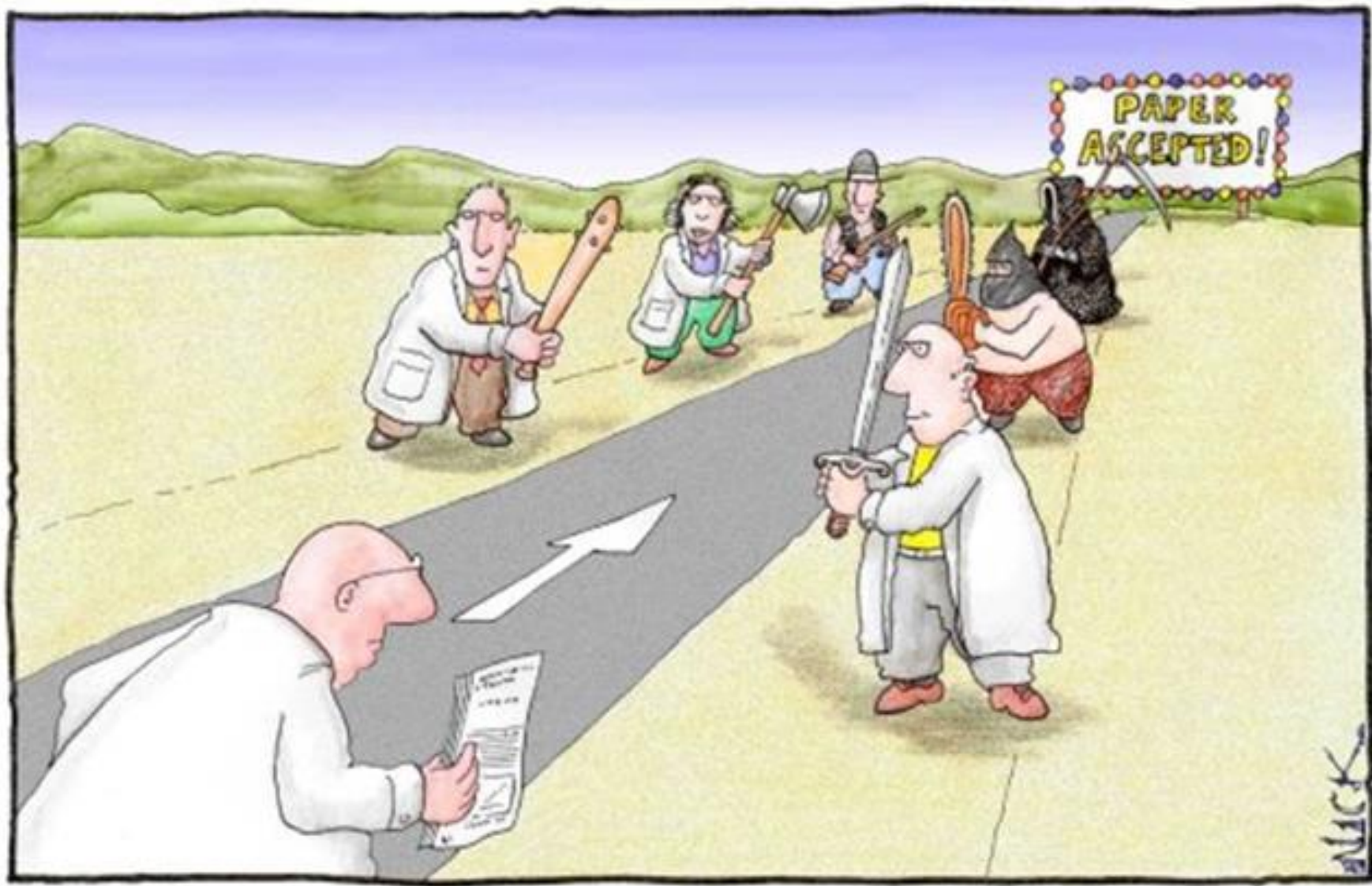
Test Execution

Test Reporting

REQUIREMENTS/ DESIGN/ REVIEW

WE ARE FINDING A DEFECT IN REVIEW **9 TIMES FASTER** THAN IN TESTING.

WE ARE SOLVING A DEFECT FOUND IN REVIEW **5 TIMES FASTER** THAN A DEFECT FOUND IN TESTING.

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Cost of Fixing

Requirements Gathering   Design   Development   Functionality/System Testing   User Acceptance   Live

Point at which Bug Discovered

PAPER ACCEPTED!

TEST PLANNING
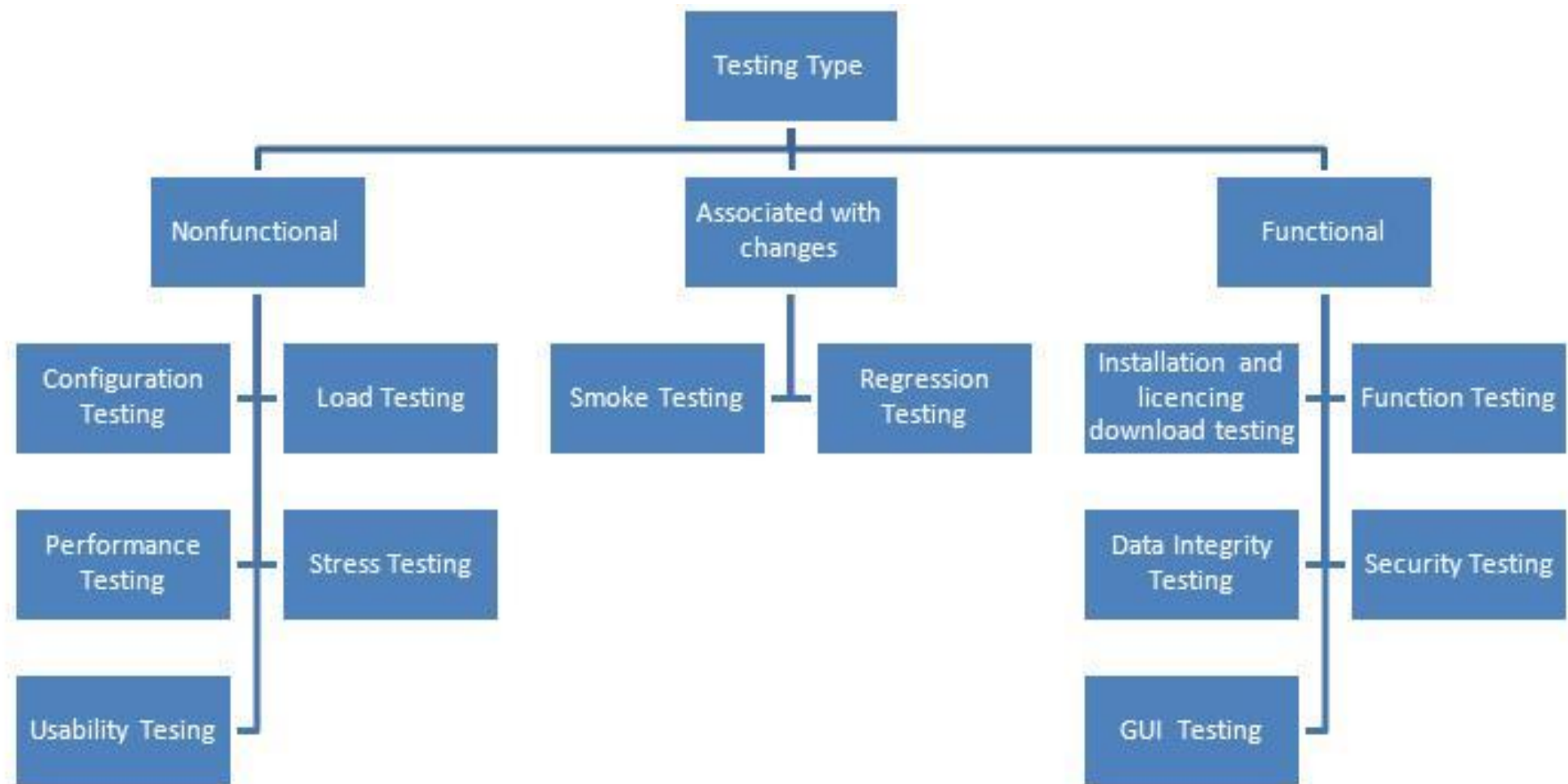
TESTING TYPES

TESTING LEVELS

SCOPE

ACTIVITIES

DELIVERABLES

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TESTING TYPES

TESTING LEVELS

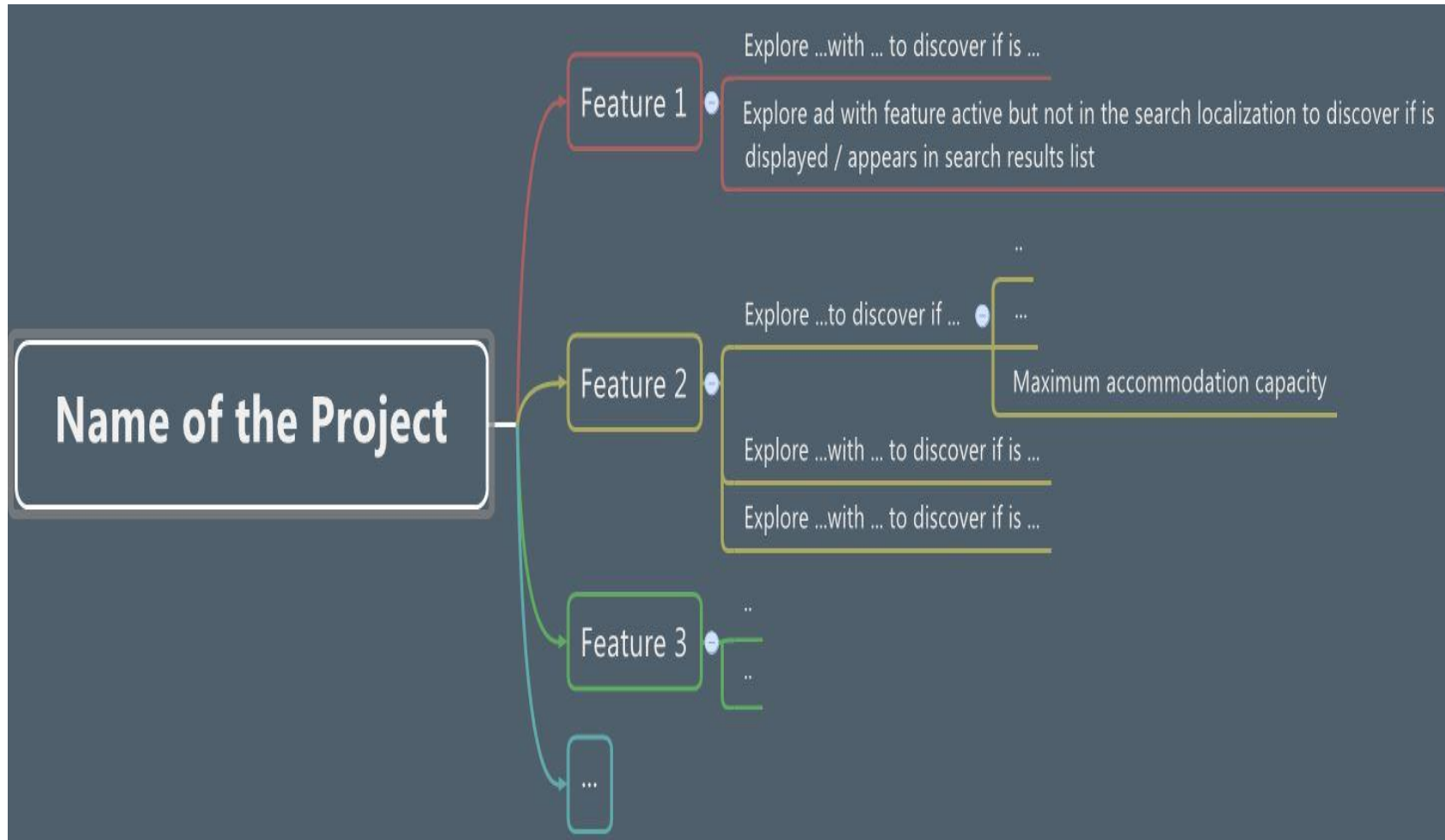|	Unit tests	System tests	Integration tests	Acceptance tests
Responsible:	Endava	Endava	Endava	Client
Test types Functional tests	•	•	•	•
Functional: Security		•		
Non-Funct: Usability		•		•
Non-Funct: Load, stress & performance		•		
Regression tests		•	•	

TEST DESIGN

TOOLS

SCOPE

ACTIVITIES

DELIVERABLES

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TEST SCENARIO

Version 1

Created on 13/09/2012 09:01:58 by florin.sibieanu
Last modified on 10/01/2013 14:34:14 by florin.sibieanu
Summary
Verify that user can't create a new origanization setting the flags Trust Center false;Scoring center nothing checked ;Health Self Management false ;Initial Call false ; DefCoach=0 but i can save if it creates and then adds a new default coach (DefCoach=1).

This are the settings for Moove organization

Preconditions
Admin credential should be known before starting the test

| #	Step actions	Expected Results	Execution		
1	Login using the admin credential	Admin home page should load	Manual	❌	⊕
	Click on Control Panel	Liferay control panel page should load			
	Under "Portal" section click on "User and Organizations" link	"User and Organizations" page should load			
	Click on Add button and select "Regular organizations" (from the dropdown)	Add "New Organization" page should load			
	Fill in Name and press Save	New organization should be created (a message should be displayed: "Your request completed successfully "); custom field should appear under "Organization Information" page			
2	Click on "Custom fields: under "Organization Information" section	Custom field page should load	Manual	❌	⊕
3	Set the fields Trust Center to false; Scoring center nothing checked; Health Self Management false ; Initial Call false and then press Save (at this moment there is no default coach present on that organization)	An error should be shown a this configuration can't be saved	Manual	❌	⊕
4	Under "Portal" section click on "User and Organizations"	"User and Organization" page should load	Manual	❌	⊕
	Click on the organization created before	Organization page should load			
	Add a new default coach for that organization	New default coach for that organization should be created			
5	Click on Edit organization button and then on "Custom Fields"	Organization's custom field page should load	Manual	❌	⊕
6	Set the fields Trust Center to false; Scoring center nothing checked; Health Self Management false ; Initial Call false and then press Save (at this moment there is a default coach present on that organization)	This configuration should be saved	Manual	❌	⊕

Create step

Execution type : Manual

Test importance : High

Review Remarks:

Common Quality Attributes

- **Design Qualities**
  - Conceptual integrity
  - Maintainability
  - Reusability

- **Run-time Qualities**
  - Availability
  - Interoperability
  - Manageability
  - Performance
  - Reliability
  - Scalability
  - Security

- **System Qualities**
  - Suportability
  - Testability

- **User Qualities**
  - Usability

TEST EXECUTION

TYPES AND LEVELS – START DOING

REGRESSION TESTING

SMOKE TESTING

SANITY TESTING

SCOPE

ACTIVITIES

DELIVERABLES

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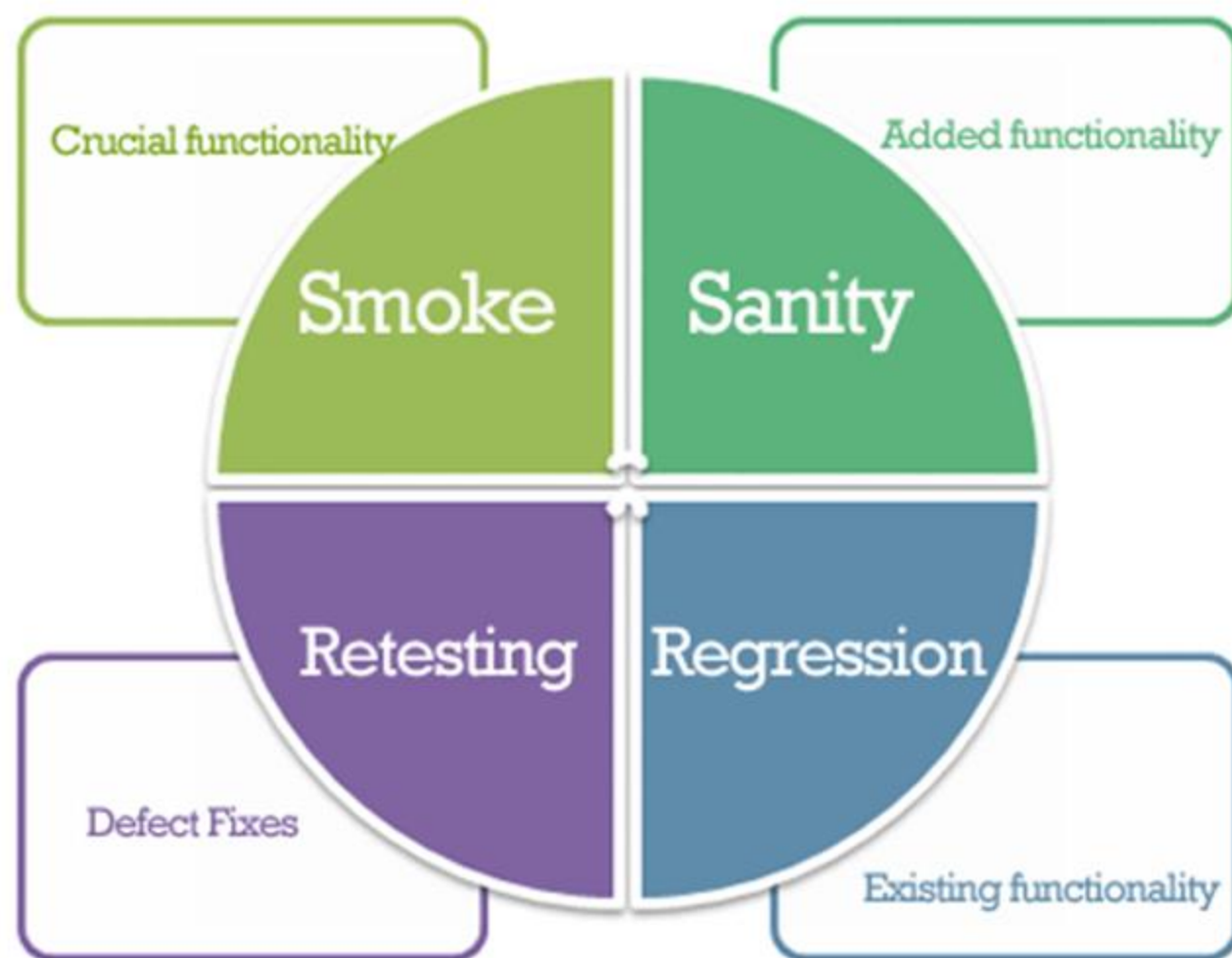
TEST REPORTING

ISSUE REPORTING – WHERE, HOW ?

TESTING ARTIFACTS / DELIVERABLES

SCOPE

ACTIVITIES

DELIVERABLES

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ACTIVITIES

DEFECT REPORTING

MEASUREMENTS

TEST REPORTS

DEMONSTRATE **THE ADDED VALUE** AND **THE QUALITY** WE ARE DELIVERING TO OUR CUSTOMERS, BY MEASURING KEY INDICATORS THAT DRIVE **IMPROVEMENT** AND INCREASE CLIENT'S **SATISFACTION**

EXAMPLES OF PROJECT'S METRICS

Selected metrics should be meaningful, useful at different levels (team, management, client), easy to collect.

PRODUCTIVITY METRICS

Estimation deviation

Sprint predictability

Velocity

Backlog health

Waste

Effort / time analysis

QUALITY METRICS

Defects Detection Rate

Defects per product

CNC (% rework)

Cost of Quality

Unit Test Coverage

Code Complexity

Test automation

PRODUCT METRICS

Security
Performance

RESPONSIVENESS METRICS

Cycle time

Lead time

SATISFACTION METRICS

Team morale

PO satisfaction

Client satisfaction

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Estimation deviation per month

Mar 0.19%, Apr -3.34%, May 2.41%, Jun -4.10%, Jul 3.78%, Ags 2.52%, Sept 5.30%, Oct. 9.85%, Nov. 0.49%, Jan-18 0.27%, Feb-18 -1.86%, Mar-18 15.13%

EST. Deviation DEV (Java, Oracle) & TST

— EST deviation DEV JAVA   — EST deviation DEV ORACLE   — EST deviation TST

%Review from time on DEV

Mar 5.43%, Apr 5.24%, May 4.53%, Jun 7.63%, Jul 5.27%, Ags 9.58%, Sept 4.12%, Oct. 9.51%, Nov. 4.21%, Jan-18 11.74%, Feb-18 11.74%, Mar-18 6.73%
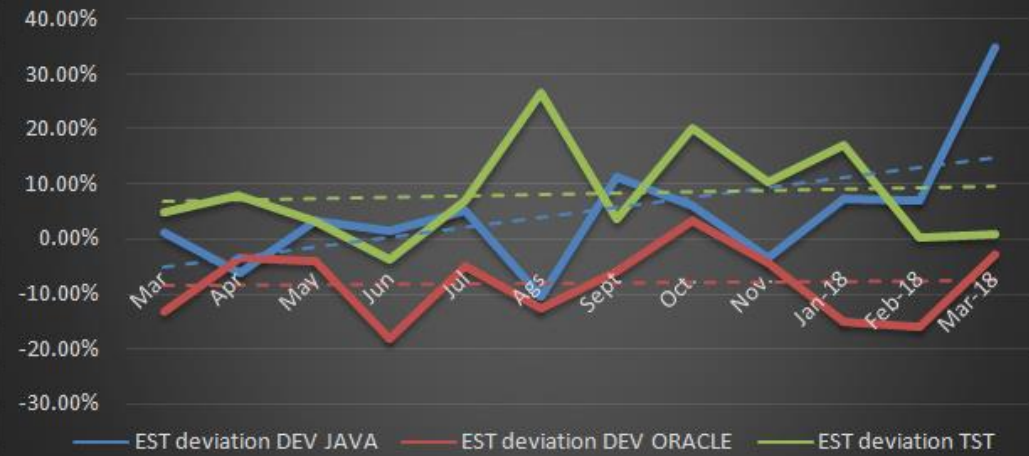
%Re-work from time on sprint

Mar 12.28%, Apr 9.26%, May 6.74%, Jun 5.05%, Jul 4.46%, Ags 4.54%, Sept 3.55%, Oct. 2.46%, Nov. 8.20%, Jan-18 4.68%, Feb-18 2.08%, Mar-18 2.83%
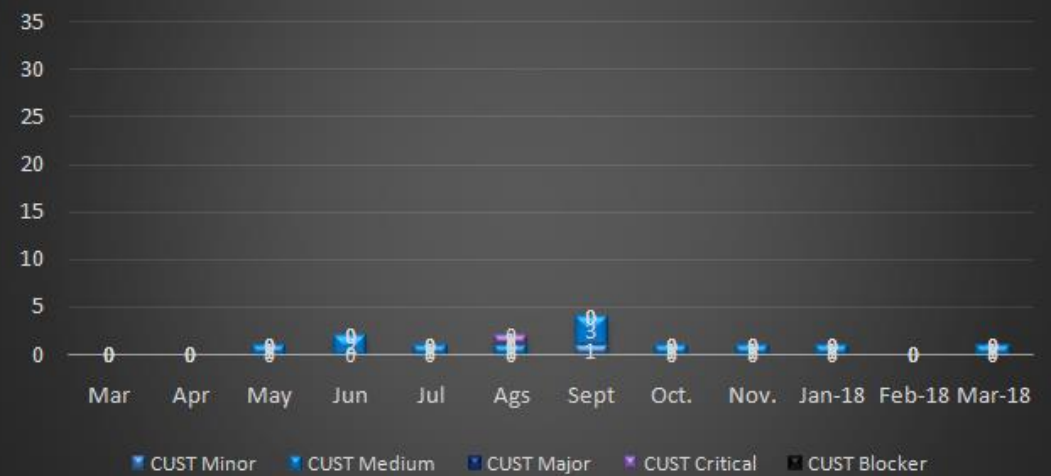
DDR TST vs. CUST

Project hours 2018

- Architecture 0.00%
- Configuration Management 11.08%
- Leadership activities 1.91%
- Meetings 2.64%
- Agile Ceremonies 8.54%
- Other 7.39%
- Requirements 8.14%
- Techical Solution 41.57%
- Testing 18.74%
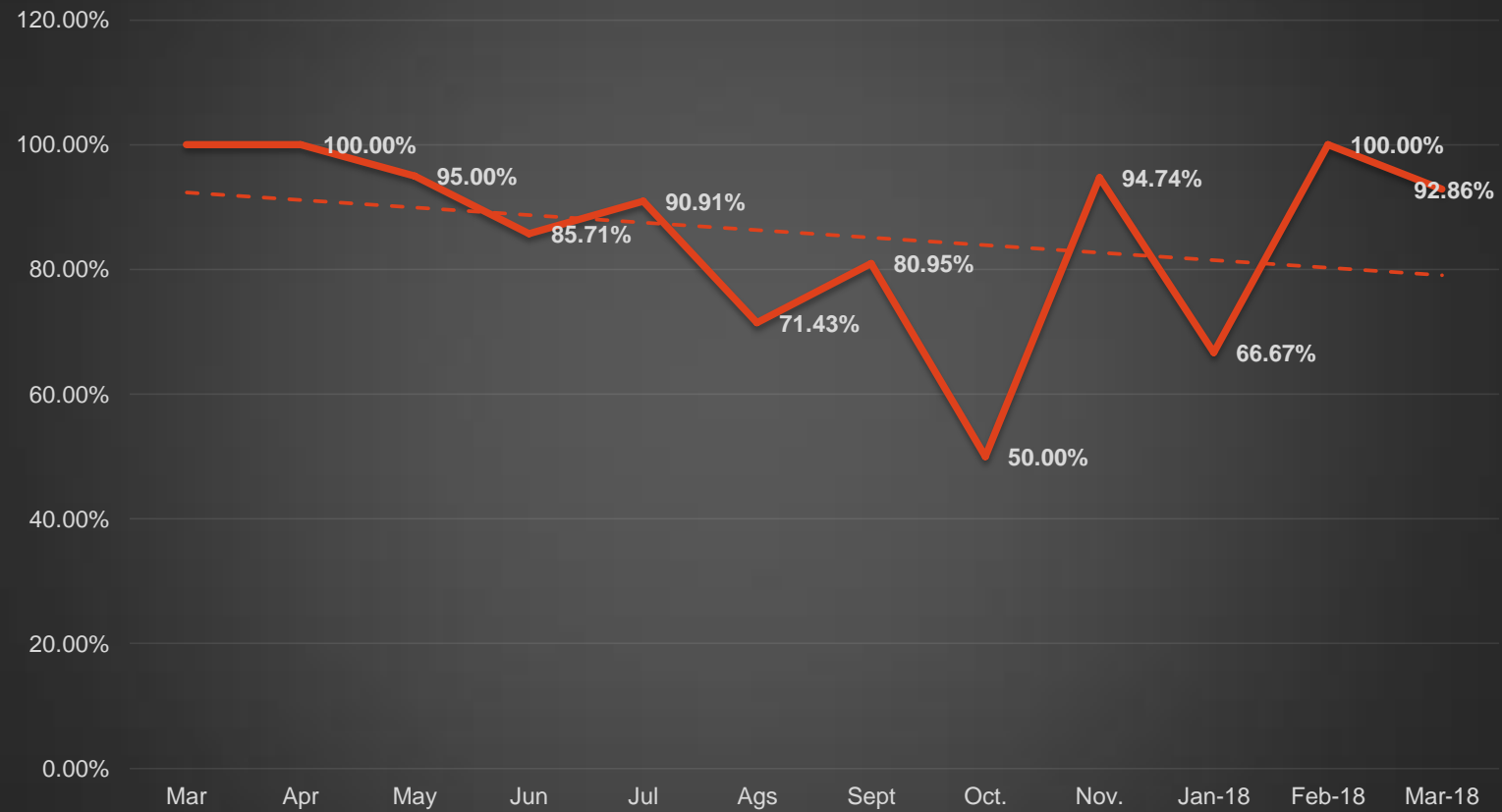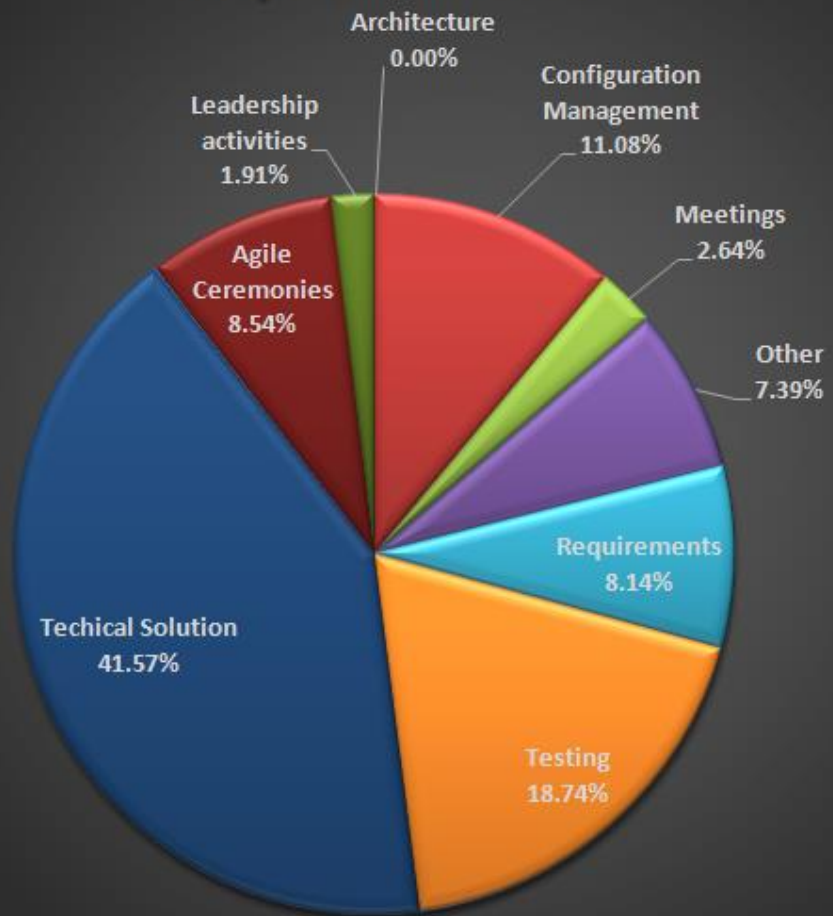
Technical Solution hours

- Bug fixing dev 5.20%
- Review 5.72%
- Development 89.08%

Agile Ceremonies

- Sprint Planning 42.55%
- Analysis & Grooming 44.92%
- Sprint Retrospective 6.37%
- Sprint Demo 6.17%

Other activities

- Travel 0.00%
- Client support 20.13%
- Knowledge retention 79.87%
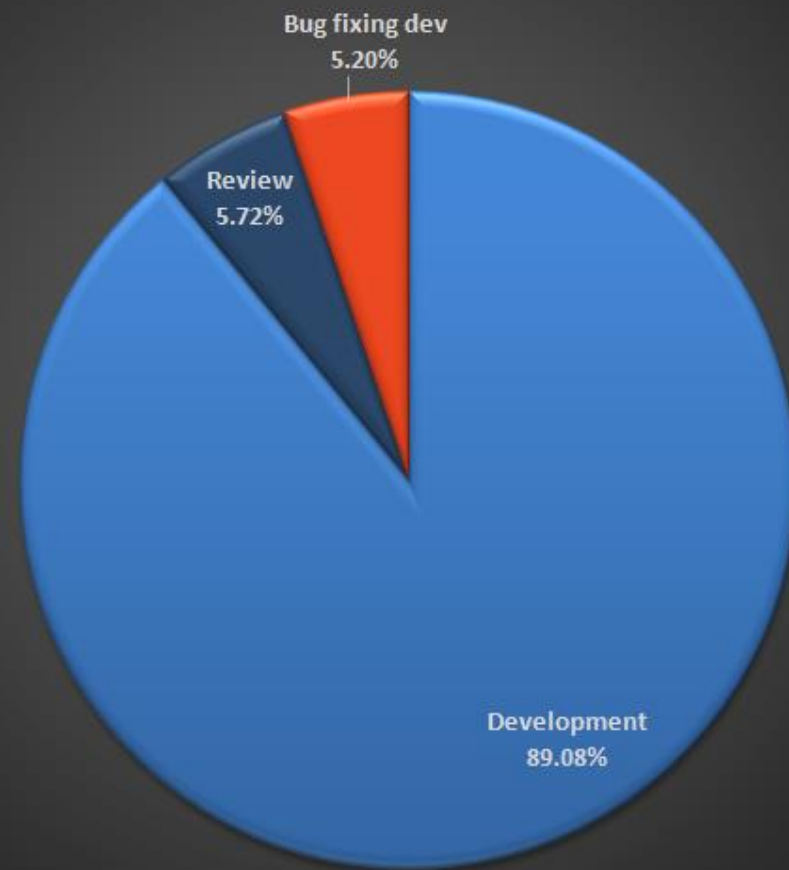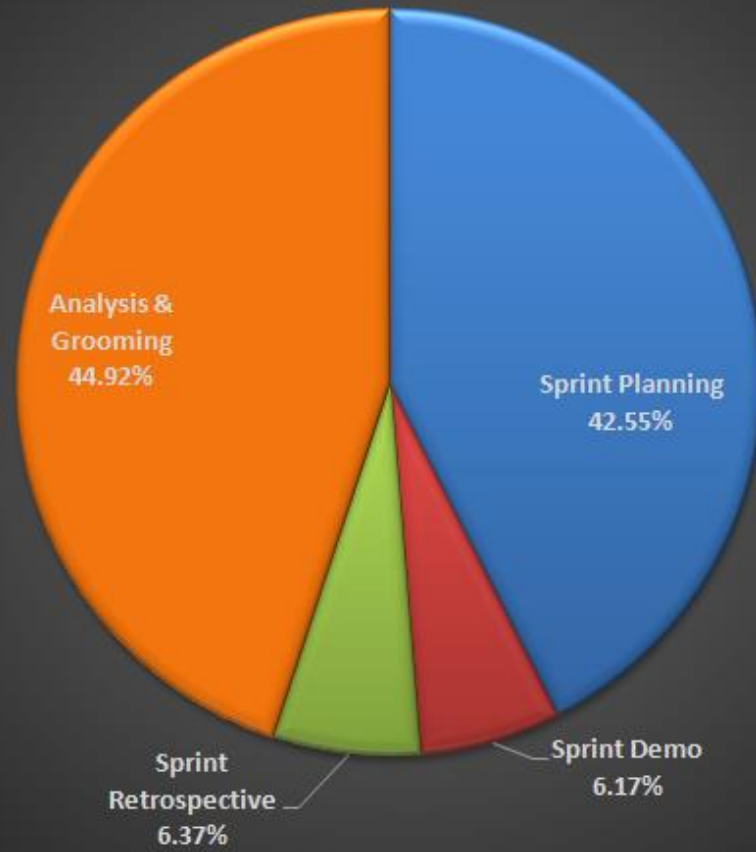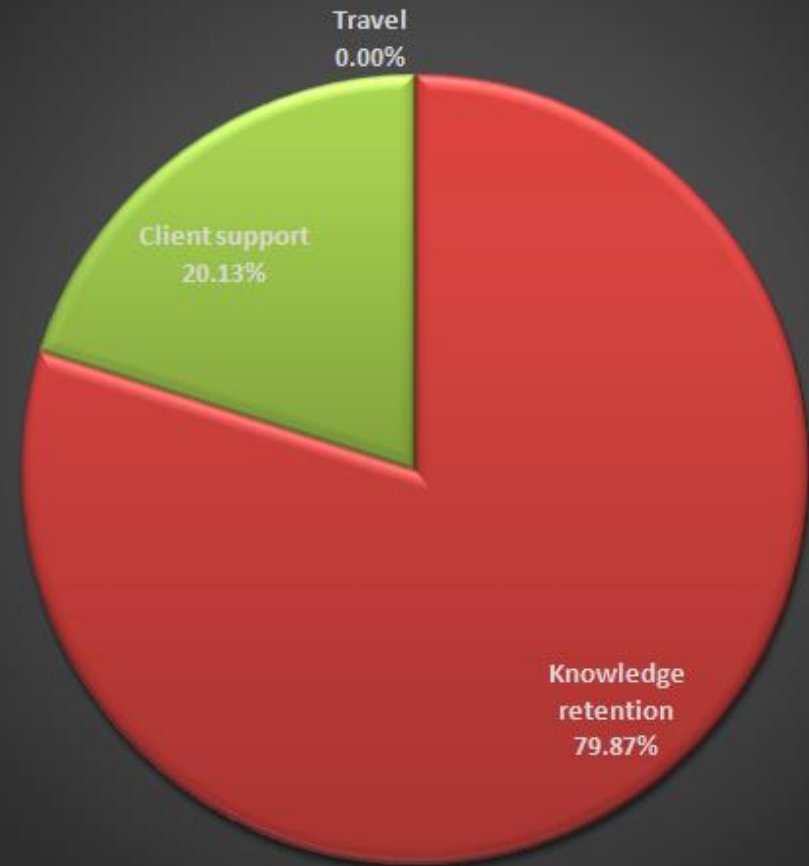
DELIVERABLES

TEST PLANS

TEST CASES / SCENARIOS

TEST SCRIPTS (AUTOMATION)

DEFECTS LOGS

TEST REPORTS

EXIT REPORT

When the base currency is other than US or Euros(example Japan Yen), the values does not change after changing the base currency to Euros

✎ Edit   💬 Comment   Assign   More ▾   Closed -> Open

Details

Type:	🟥 Bug		Status:	**CLOSED**
Priority:	⊘ Blocker		Resolution:	Cannot Reproduce
Affects Version/s:	None		Fix Version/s:	None
Component/s:	None			
Labels:	None			
Source System Incident ID:	NA			

Steps to Reproduce: ⌄ Find out a clinet whose base currency is other than USD or Euros.
Now change the base currency of this client trhough MDM to USD and observe the value on the CR UI

Actual Result: The value remained same but the text changed for JPY to USD(seee the attached screenshot)

Expected Result: Would expect the value to change depending on the currecny selected

Description

When the base currency is different than Euros and USD, the mtm value does not change after the base currency changes. Please see the screeenshot

Attachments

Drop files to attach, or browse.

3976_560_JPY.PNG
07-Oct-14Y 12:27 PM   53 kB

3976_560_USD.PNG
07-Oct-14Y 12:28 PM   47 kB

MTM recalculation on PROD
10-Feb-15Y 12:08 PM   103 kB

People

Assignee:	⚪ Christophe de Breuck (Inactive)
	Assign to me
Reporter:	⚪ Poonam Patil (Inactive)
Votes:	0 Vote for this issue
Watchers:	4 Start watching this issue

Dates

Created:	07-Oct-14Y 12:27 PM
Updated:	23-Feb-15Y 12:30 PM
Resolved:	18-Feb-15Y 3:08 PM

Time Tracking

Estimated:	▭▭▭▭▭	0m
Remaining:	▭▭▭▭▭	0m
Logged:	▬▬▬▬▬	6h 15m

☑ Include sub-tasks

Development

Create branch

Agile

Completed Sprint: Sprint 10 ended 02-Mar-2015

View on Board

HipChat discussions

2   SUBJECT OF THIS TEST REPORT

1. Test Scope

- The present test report concerns Client Reporting release 5.7.0, delivered by Endava on 02.03.2017. The release's main scope is to deliver the changes regarding Tridion migration phase two, the email templates and the Configuration page in MDM. As some impact was on all applicatitions, they will all be delivered: MDM, HPO CR, HPO widget, Loans ACBS widget, OG, EOY OG, OAG and mail jobs.

- Development and testing for this release was done with widgets and HPO CR installed with the theme version BlueLight theme 3.76.0.

2. Test Strategy

- The following tables include the user stories delivered, as well as the test approach and conditions (scenarios) covered within those stories.

- All testing was done manually except where otherwise specified.

- The main focus was on testing the integration of the new ContentManagement service with all the applications, fail and error handling were also in scope.

- Informations about how to run the jobs can be found in the documentation from the References table, section #2.

3   PROGRESS AND QUALITY REPORT

This part serves as the quality report of the released packages. Also, it is used for alignement on the areas covered by our testing team and .   testing team.

3.1   PROGRESS OF THE TEST EXECUTION

HPO Client Reporting			
User Story/Bug	Test approach/conditions	Browser	Defects& comments
-3244MAINTAIN AND USE EMAIL SUBJECT AND CONTENT IN CLIENT REPORTING INSTEAD OF TRIDION	Tested the email sent from **HPO CR**: Disagree mail, approval mail sent at Reopen and approval mail sent at Close and Save new. Regression done on the Disclaimers	FF 51.0.1 Chrome	RABOCR-3959 RABOCR-3966 RABOCR-3969
-3244	**sendConfirmationMetadata service** there was impact also on this service for the Confirmations. The email sent was the main focus of testing	NA	-

```gherkin
Feature: HPO Details - Check the upcoming maturities tables from MyOverview page

    As an authorized Client Reporting client user, I want to be able to select a certain client I am authorized for and:
        - see the when client's open transactions will mature
        - check the upcoming maturities per product group
        - check the upcoming settlements of the open trades, based on the period chosen (TBD)


@DONE
@HighPriority
Scenario Outline: The one where I have some upcoming ID transactions.
    Then I should see the upcoming events for <product type>
    |Client Id      |Product Type   |Expiration date         |Transaction Summary    |Rate   |
    |<client id>    |<product type> |<expiration date>       |<transaction summary>  |<rate> |

Examples:
    |client id  |product type              |expiration date       |transaction summary          |rate       |
    |300203933  |Cross Currency Swap       |14-jun-2018           |EUR 124.500.000,00           |35,00%     |
    |300203933  |Forward Rate Agreement    |23-jun-2018           |EUR 124.500.000,00           |35,00%     |



@DONE
@HighPriority
Scenario Outline: The one where I have some upcoming FX transactions.
    Then I should see the upcoming events for <product type>
    |Client Id      |Product Type   |Expiration date         |Transaction Summary    |Rate   |
    |<client id>    |<product type> |<expiration date>       |<transaction summary>  |<rate> |

Examples:
    |client id  |product type   |expiration date   |transaction summary                      |rate           |
    |300203933  |FX Option      |29-okt-2017       |U koopt Put USD 10,55 / Call BRL 500,00  |-30,500000     |
    |300203933  |FX Option      |29-okt-2017       |U koopt Call BRL 500,00 / Put USD 20,77  |-30,500000     |




@DONE
@HighPriority
Scenario Outline: The one where I have some upcoming Com transactions.
    Then I should see the upcoming events for <product type>
    |Client Id      |Product Type   |Expiration date         |Transaction Summary    |Rate   |
    |<client id>    |<product type> |<expiration date>       |<transaction summary>  |<rate> |

Examples:
    |client id  |product type        |expiration date   |transaction summary   |rate          |
    |300203933  |Commodity Option    |26-okt-2017       |                      |USD 125,45     |
```

ASK QUESTIONS

KAHOOT.IT

.THX

EMAIL US AT:

ROXANA.SOPORAN@ENDAVA.COM

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