The Future Of Testing
Expect The Unexpected

Gerlof Hoekstra, Groningen 21 november 2013

Dutch Testing Day

Atos

Oh god what have I done....

Testing has become mature! Am I happy now?

DOCTOR·WHO

POLICE PUBLIC BOX

You don't have to be a control freak

Questioning our 'crown jewels'

Qualities of the Future Tester

Finally, testing has become mature !
Not sure weather or not I should be happy now…

- ► Assembling my E2E test team

- ► Certified test professionals or ….?

- ► What has happened?

- ► Somewhere, something must have gone wrong….

Discussion with a 'classic' test manager

► How to we know your test set is complete?

► Your test cases are not very detailed.

► You did not define in the test plan the criteria when a defect is considered blocking.

► You do not have certified testers in your team

► You did not define acceptance criteria (coverage%, #test cases passed, #open defects)

► You should complete the system test before you start the acceptance test

► The most important deliverable (go/no go advice) is missing in your plan

► ---

► ---

Review test plan v0.5
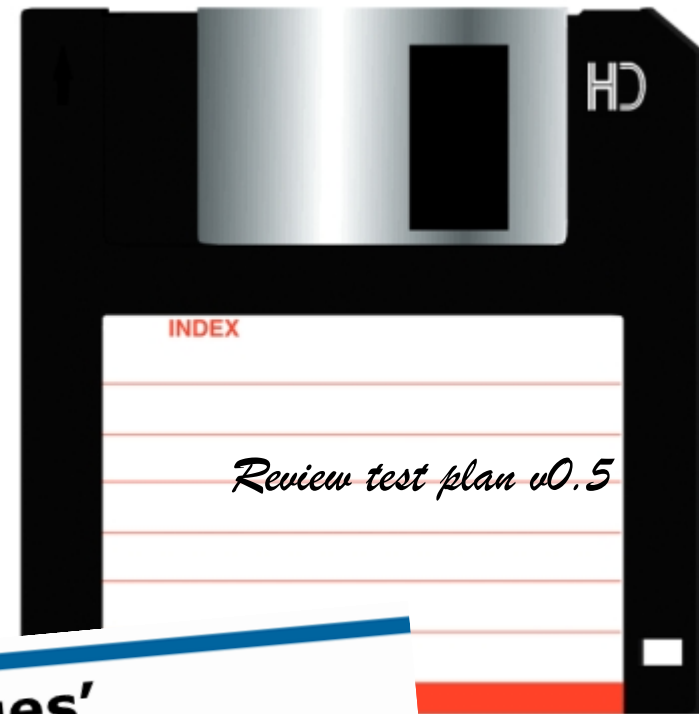
One of my 'basic values'
'Expect The Unexpected'

► Projects are subject of constant change and movement
► One cannot possibly plan all activities ahead
► Test strategy should be able to *cope with change*

Let me introduce you to 'The Doctor'

You don't have to be a control freak to get missions accomplished

Our first holiday abroad
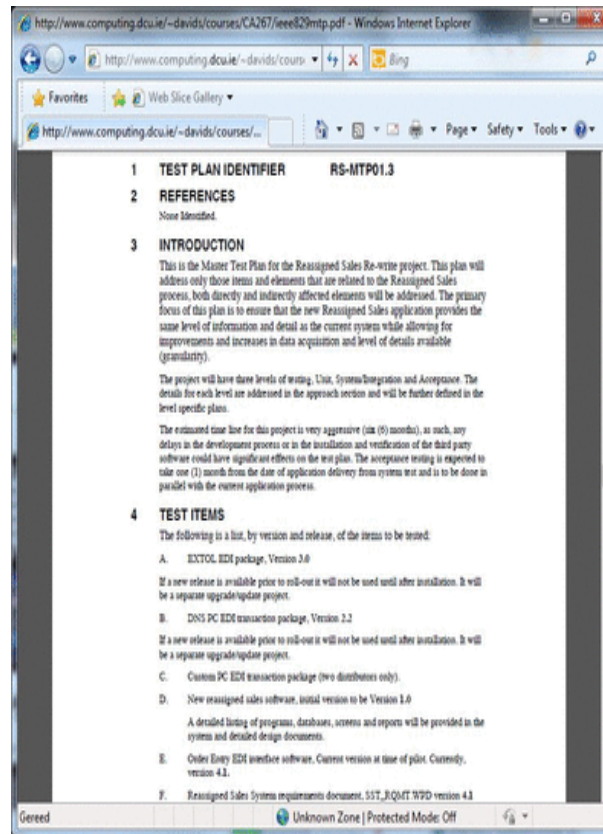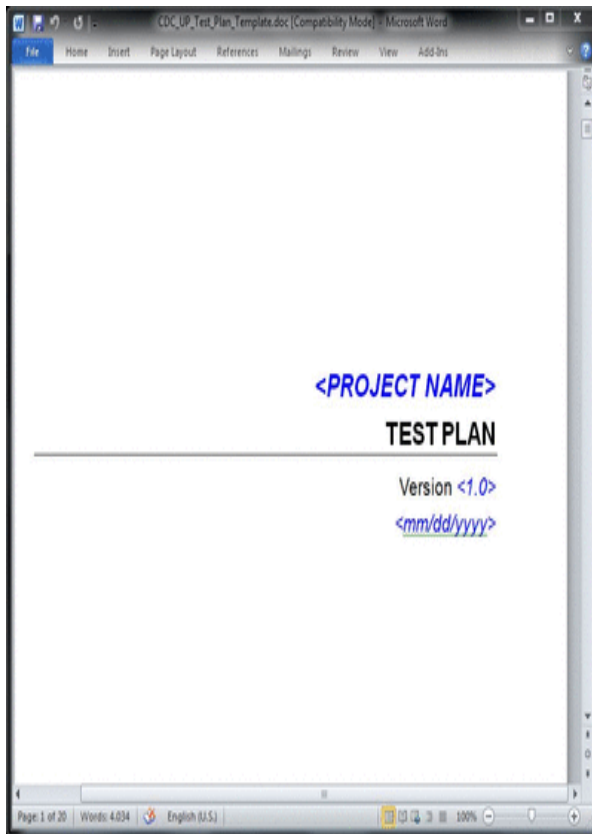## Detailed planning vs flexibility

- ▶ Have a simple but clear plan, not too detailed
- ▶ Have attention to details by the time when really needed, be prepared !
- ▶ Prepare / train your team so that they are able to respond when the Unexpected happens

Crown Jewel 1:
The Test Plan

Your business technologists. **Powering progress**

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Writing a Test Plan 'best practice'

The creation of the test plan involves the following activities:

1. Establishing the assignment
2. Understanding the assignment
3. Determining the test basis
4. Analysing the product risks
5. Determining the test strategy
6. Estimating the effort
7. Determining the planning
8. Allocating test units and test techniq
9. Defining the test products
10. Defining the organisation
11. Defining the infrastructure
12. Organising the management
13. Determining the test project risks and countermeasures
14. Feedback and consolidation of the plan

6 Acceptatie- en systeemtesten
159

wijze is aangegeven, hebben de stappen 5, 6 en 7 een expliciet iteratief karakter:

Figuur 6.5: Opstellen testplan.

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2. Understanding the assignment
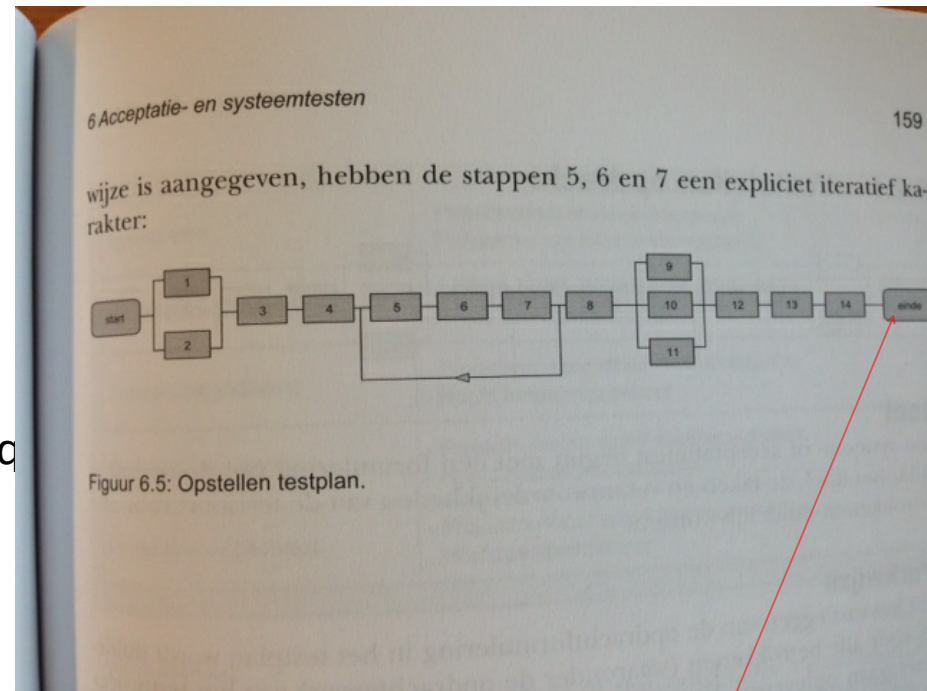3. Determining the test basis
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Figuur 6.5: Opstellen testplan.

Now look at this !?!

What works for me
Instant, continuous feedback and collaboration

Test Plan Example

Your business technologists. **Powering progress**

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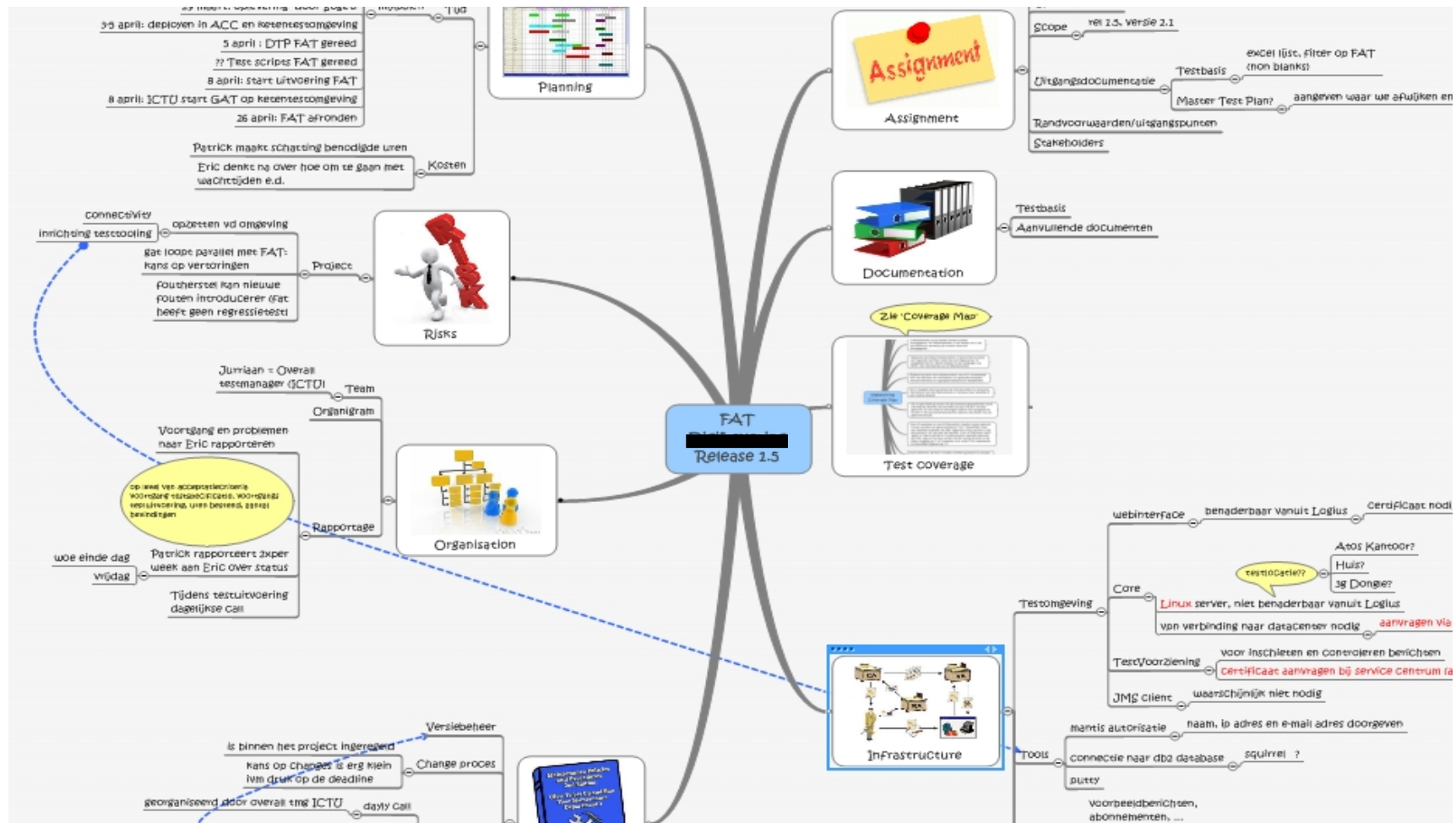
Crown Jewel 2:
Test specification

► How many test cases & scripts do we really need?

► How detailed should they be?

► Scripted vs Exploratory testing?

IT IS ALL ABOUT BALANCE

My observation:

• Many test educations (and as a result, many certified testers) heavily over-rate the value of specifying a lot of detailed test scripts

• Often, you can do with less test scripts than you might think

Real Life Test Spec Example
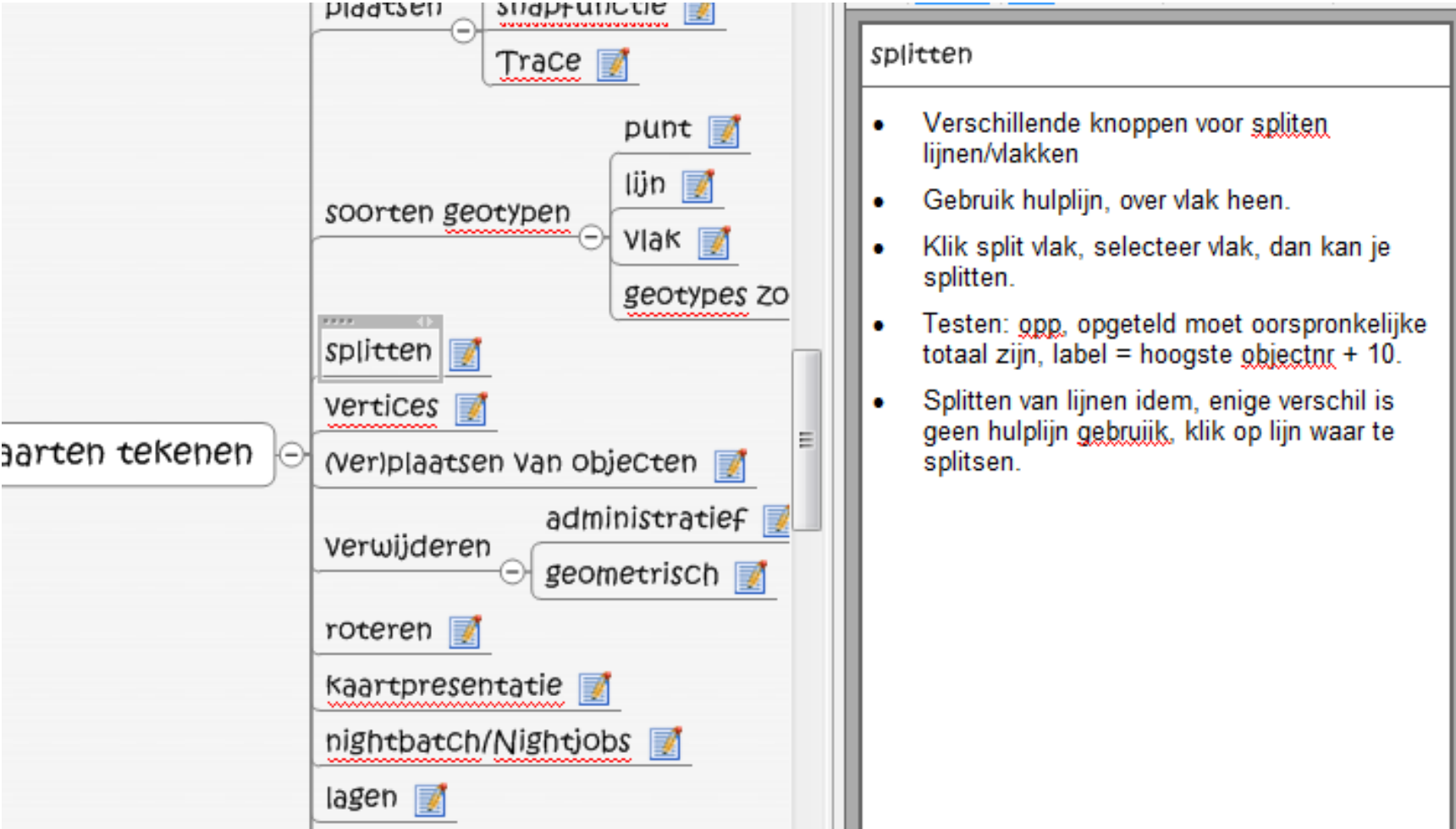
Coverage Maps
A great way to prepare your test

Tip: you can use James Bach's San Francisco DePOT acronym

Example 'Lean' Test Specification

For a Geographical Information System using a coverage map

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Example 'Lean' Test Specification
For a Geographical Information System using a coverage map

Crown Jewel 3:
Test Reporting

Steps	Passed	Failed	Not Run	
27-3-2013	55	40	592	
3-4-2013	84	57	546	
10-4-2013	101	71	515	
17-4-2013	45	70	599	Run 2
24-4-2013	142	161	429	
1-5-2013	211	200	321	
8-5-2013	334	303	132	Run 3
15-5-2013	183	156	430	
22-5-2013	286	265	223	
29-5-2013	389	336	30	Run 4
5-6-2013	218	85	467	
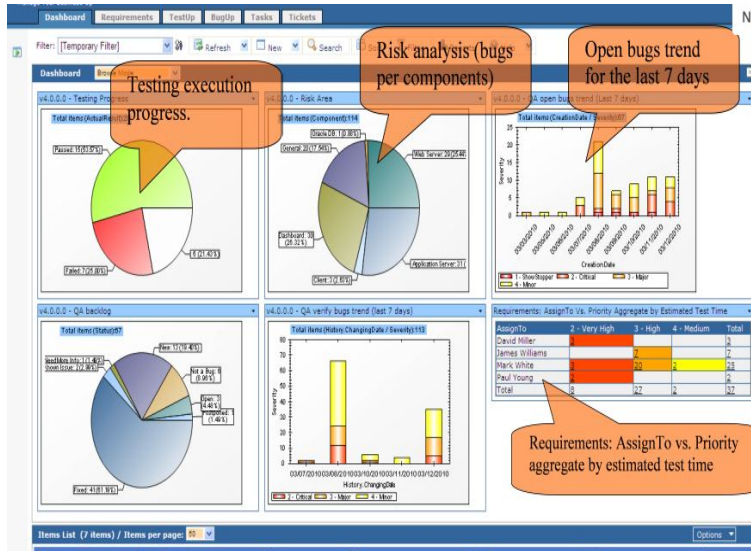
▶ **Numbers/Graphs/ KPI's**

▶ **# test cases executed**

▶ **# test cases passed**

▶ **$ test cases failed**

▶ **# defects found/ fixed/open**

▶ **Coverage %**

▶ **Defect density**

▶ **Defect Detection %**

▶ **Lists of open defects**

▶ **Traffic lights**

▶ **GO/NO GO ADVICE**
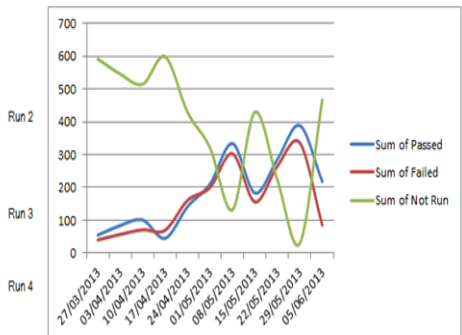
▶ Number of defects and status of defects per severity/priority class

Defects	Critical	High	Medium	Low	Total
27-3-2013	1	8	68	66	143
2-4-2013	2	6	68	69	145
3-4-2013	2	6	66	70	144
10-4-2013	1	4	55	69	129
17-4-2013	2	9	58	71	140
24-4-2013	2	12	75	74	163
1-5-2013	1	11	79	78	173
7-5-2013	0	14	80	81	175
15-5-2013	0	10	36	50	96
22-5-2013	0	11	25	35	71
29-5-2013	0	6	30	41	77
5-6-2013	0	8	24	40	72

Total	Opened	Total Opened	Closed	Total Closed
27-3-2013	143	143	0	0
2-4-2013	43	186	42	42
10-4-2013	40	226	55	97
17-4-2013	66	292	55	152
24-4-2013	78	370	55	207
1-5-2013	51	421	41	248
7-5-2013	81	502	79	327
15-5-2013	64	566	143	470
22-5-2013	60	626	85	555
29-5-2013	95	721	89	644
5-6-2013	69	790	74	718
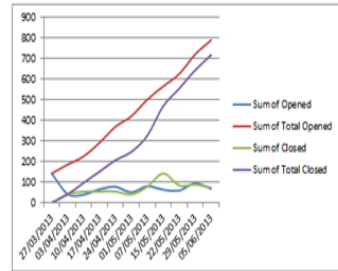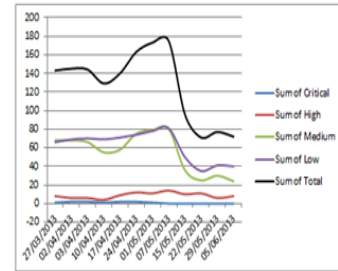
Status / Comment:

	Status		Comments
LTE post Prov.	Blocked	65,1%	PR 171371 & 71364 changed & corrupt the BP (LTEA activation for new & existing subscriber). Test blocked. Already tested TS have to be repeated, if BP were changed with this delivery. PR171387 & 171385 describe the blocking issues. They will not be fixed before 03.06.13. And then tester will stqart their test for 4708 Upselling Capability Roaming. Work stopped!
LTE CSC	completion		BAT Spec sent to PL. HoT slides agreed by SM (ok from SDMO provisioning & AM-CASS).
LTE DWH	completion		Test done. TSR done and agreed.. HoT-Slides at SM for review & agreement.
LTE pre Ch.	completion		OAC Green BAT report in review by E-Plus
OWS	LT: Report		ASR by T-System: IT done. BAT ongoing. LT: Load Test Report ongoing.
Upselling	preparation		ASR in estimation and resource planning.

Status

CW 22	CWn+1

Milestones

| RfTP | 15.03. | ✓ |

Just one example: Test coverage %'s
Only testers understand these numbers (do we really?)

We have reached 95% multiple condition coverage

What on earth does that m...

Must be good, 95% is almost everything

Multiple condition coverage

Percentage of combinations of all single condition outcomes within one and the same operator that have been tested by a set of tests
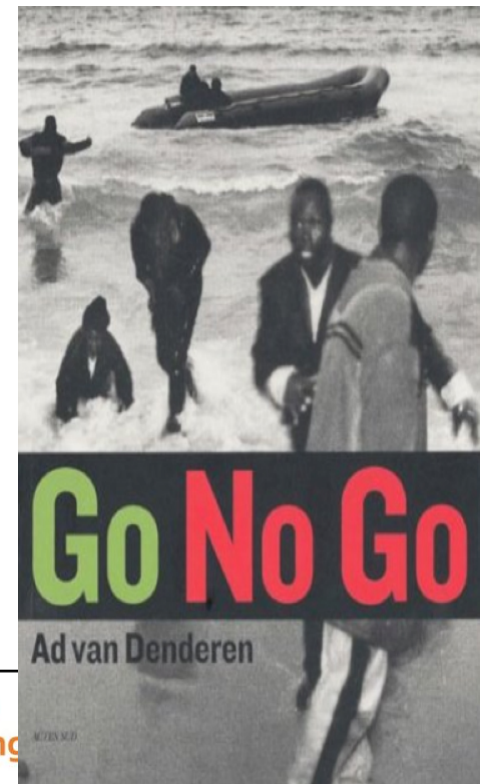
Does this mean:

▶ we have a quality product now?

▶ the product complies to the design?

▶ we have a usable product?

Question: Do you provide Go/No Go advices ?
Or if you are a test service consumer: Do you ask for them ?

► If my customer asks me (the test manager) for a go/no go advice, I consider that as a personal failure. I did not properly do my job!

► If I did, what would my advice be worth anyway?
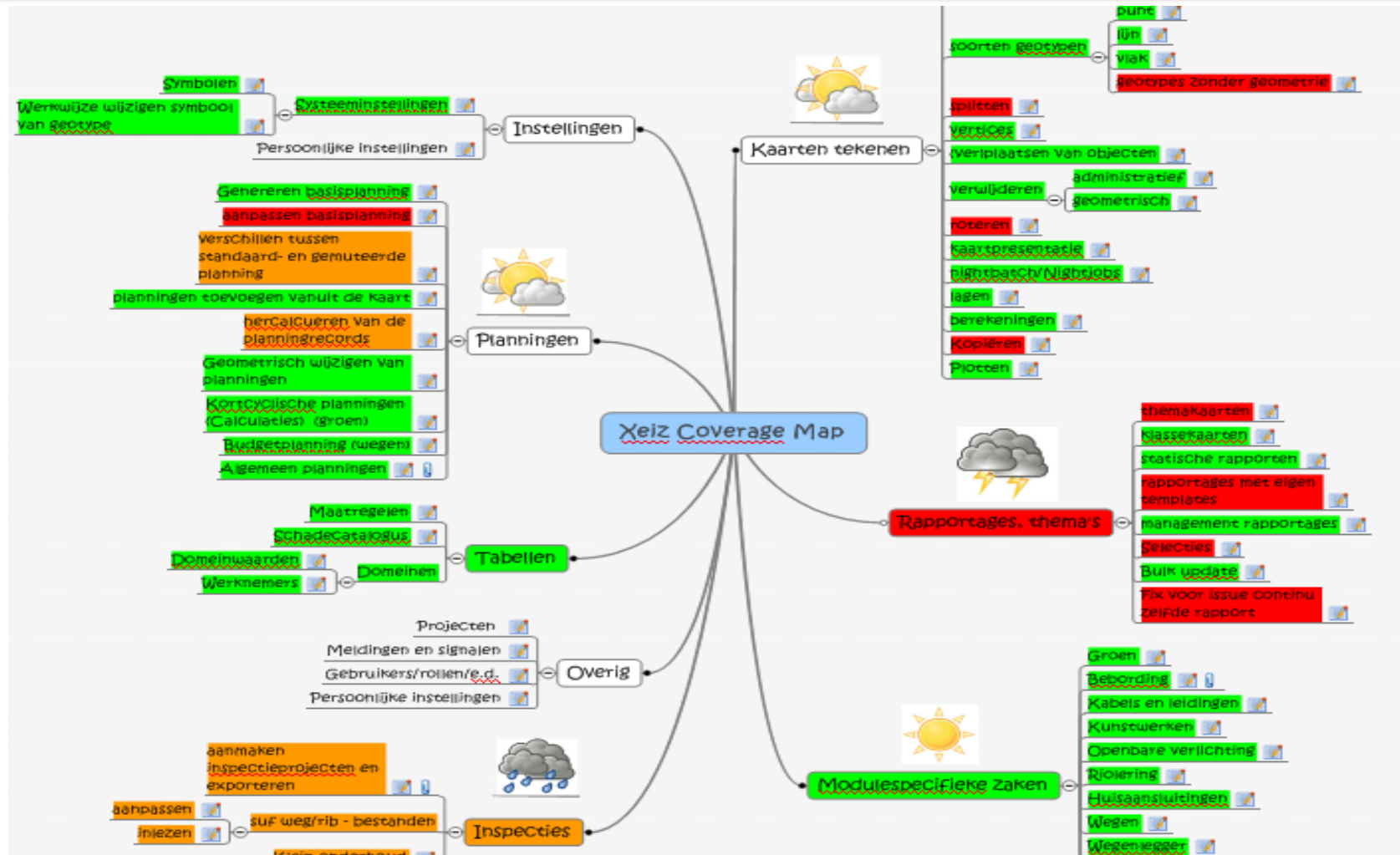
How we tend to report

► We covered 95% of the area

► We found 60 mines

► We disarmed 58 mines

► The 2 mines we did not disarm are here

► These are MSM MKII mines containing 4Kg of Composition B explosives
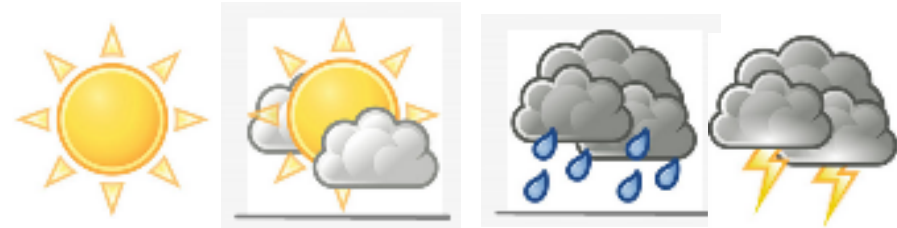
IS THIS USEFUL INFORMATION ?

WOULD YOU APPRECIATE MY GO/NO GO ADVISE?

Alternative: Use maps to show coverage & test results

What is wrong with the good old traffic lights?

▶ Do not encourage to take very much responsibility

▶ Don't think, just obey the law !!

▶ Is not how I want to communicate my test results

▶ It is not the test manager who decides!

- Weather symbols send a better message

- This is likely to happen

- You have been informed (warned?) and now it's up to you to make a decision

- B.t.w.: a weather forecast is never 100% reliable

The Future Tester
A shift in qualities

From:	To:
• Ensure quality	• Quality assistance
• Go/No Go decision	• Deep insight to stakeholders
• Find defects	• Prevent failures
• Number of test cases	• Coverage map
• Number of defects	• Business consequences
• Enforce, control	• Serve, help, facilitate
• Proof	• Forecast
• Follow rules & standards	• Investigate
• Strictly follow detailed plans	• Prepared for change
• Certification	• Diversity
• Requirements freeze	• Requirement management
• Acceptance criteria	• Participation, co operation

What can we learn from The Doctor?

- ▶ Passionate about his mission
- ▶ He enjoys his journey
- ▶ No dogma's
- ▶ Not afraid of the unexpected, embraces change
- ▶ Surrounded by a few smart and pro-active companions
- ▶ Uses a few simple yet powerful tools
- ▶ Easy going, BUT can be very persistent WHEN IT MATTERS

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Thank you !

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