

Test Process Improvement on a Shoestring

Low cost improvement - Reduced testing costs - Equal quality of testing

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Context

Economic Crisis

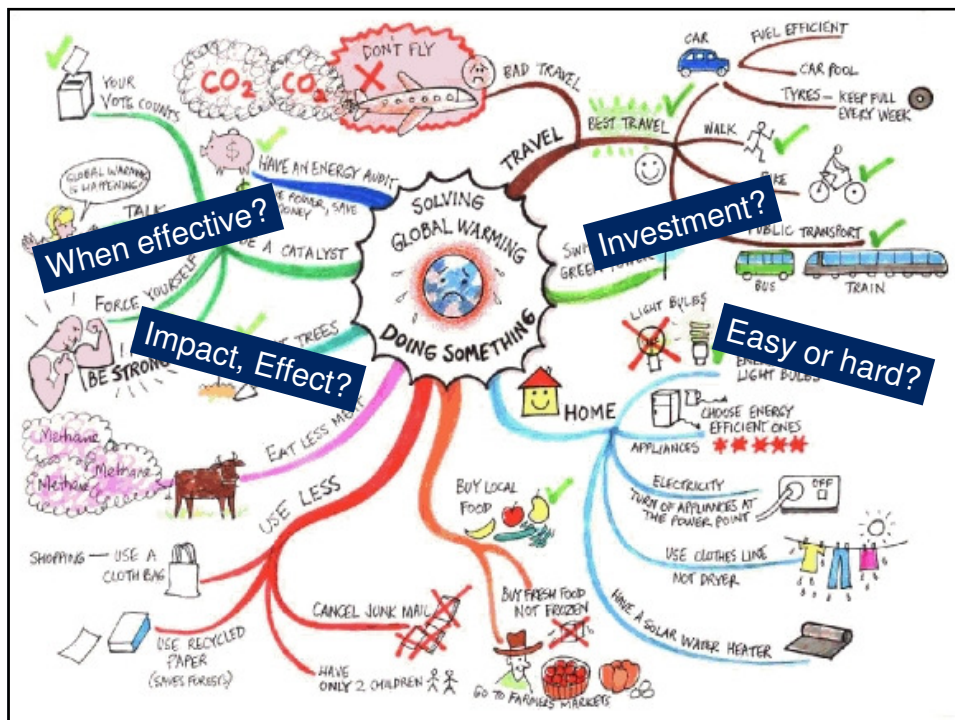
- Pressure on (testing) costs
 - Costs? Any costs e.g. effort, training, infra & tools, etc.
- No budget and time for extensive improvement programs
 - TPI, TMM, TMM*i*, TIM, TOM, TSM, TAP, CTP, STEP, etc.
 - Formal assessment
 - Broad scope
 - Long-term focus
 - “High” Investment
 - Implementation programs

Required

- A low-budget way to select and implement quick wins for cost reduction

Meet with your (senior) (testing) staff and start...
(for 2 hours max)

- Brainstorming (use post-it's and pens, drink loads of coffee)
- Gathering ideas, notions, hints, suggestions, ...
 - from vague, "wild" to concrete, pragmatic
 - bad ideas don't exist, anything is ok
- Thinking, discussing, weighing, discussing, prioritizing, ...
- Not only "what" but also "how"
- Focusing 100% on cost reduction for testing




Improvement possibilities
focused on cost reduction for testing

When effective?

Investment?


Impact, Effect?

Easy or hard?

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Define “Term”

- When will the measure be effective?
 - Now *(this iteration/project/release)*
 - Within 2 weeks *(next iteration)*
 - Within 2 months *(next project/release)*
 - Long term *(TPI/TMM like)*
Don't know if we're still here when it starts working...

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Define "Impact"

- What will the impact be? How effective?
 - High
Savings are very valuable, visible, clear, quick-wins
 - Medium
Savings are noticeable, evident, contributive
 - Low
Savings are small, marginal
Only when all other measures have been implemented



Define "Investment"

- What investment is required?
 - Free
What are you waiting for?
 - Low
Little effort required
Less than 24 man hours
 - Medium
Minor effort required
Less than 40 man hours
 - High
Major effort required
Make sure it's worthwhile (High impact, Now, ...)



Define "Ease of Implementation"

- How easy is it to make the measure effective?
 - Just do it
 - Instruct / Train / Support *With a little help it will work*
 - Convince / Coach *With a little pushing, pulling it will work*
 - Force *My way or the highway
They won't like you anymore after this...*



Improvement possibilities *focused on cost reduction for testing*

When effective?



Investment?

Impact, Effect?


Easy or hard?

Ideal possibilities			
Term	Impact	Investment	Ease of implementation
Now	High	Free	Just do it



Set priorities and sort accordingly


Term ¹	Impact ²	Investment ³	Ease of implementation ⁴
Now	High	Free	Just do it
Now	High	Free	Instruct/Train/Support Convince/Coach
Now	High	Low	Just do it Instruct/Train/Support Convince/Coach
Now	High	Medium	Etc.
Now	Medium	Free	
Now	Medium	Low	
Now	Medium	Medium	
Within 2 weeks	High	Free	
Etc.	Etc.	Etc.	

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Deliverable : *Emergency Cost Reduction List*

- YOUR list with measures for YOUR organization
 - Created by your own test staff
 - The right measures for your organization
 - 100% focused on cost reduction

Note
*Models like TPI and TMM are still beneficial as they focus on improving test **efficiency** (costs, lead-time : Risk-based, Early detection, Reuse, Collaboration, Automation) and improving test **effectiveness** (quality : Timeliness, Coverage, Insight, Control)*

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If you don't even have the time / budget / resources to do this yourself, feel free to look at our list and select appropriate measures for your organization...

Top 20 Test Improvement Suggestions
!Focusing on cost reduction!

Based on our experiences at, amongst others:

- Agis
- B/CICT
- Belastingdienst
- Centraal Bureau voor de Statistiek
- Essent
- GGZ Drenthe
- IAK
- Kadaster
- Priva
- RDW
- Rijkswaterstaat
- Segment Interactieve Media
- Sigma
- TNT Post
- UMCG
- Wanadoo
- Barclays Bank (UK)
- Capital One (USA)
- Capital Group (USA)
- Daimler Chrysler (G)
- EriSoft (SW)
- Ericsson (SW)
- E-Quallity (Mex)
- Eurotel Český Telecom (CS)
- Hansabank (EST)
- Huawei (CHINA)
- Hypo Vereins Bank München (G)
- NATO (G)
- NDS Ltd (UK)
- Nokia (Fin)
- Novell (USA)
- PepsiCo (USA)
- Peoplesoft (USA)
- Royal Bank of Scotland (UK)
- Statoil (N)
- Sun Microsystems (USA)
- T-Systems (G)
-



We did what I talked about until now..

Brainstorming
 Define Term
 Define Impact
 Define Investment
 Define Ease of Implementation
 Prioritize

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Top 20 – Test Improvement suggestions

!Focusing on cost reduction!

1. Daily “scrums” within testing
 - *Focus on the right things to do*
2. High frequency of brief meetings
 - *With only those directly involved*
3. Don't get involved in everything,
 - *don't get everyone involved in everything*
 - *Stay focused on the job at hand*
4. Assign less time / resources to tasks within your project
 - *Whatever you assign will be used*

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Top 20 – Test Improvement suggestions

!Focusing on cost reduction!

5. As a Test Manager make decisions rapidly
 - *7 out of 10 decisions right is almost perfect*
6. Organize walkthroughs and workshops to discuss and finalize business requirements and designs
 - *Build and test the right thing*
7. Test Design Techniques only when required by the risks
 - *Requirement and Risk Based Testing as it should be*
8. Report problems immediately, everyone!
 - *Don't save them for the next meeting*
 - *Don't think it won't be that bad this time*
 - *Don't assume they will solve it somehow*

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Top 20 – Test Improvement suggestions

!Focusing on cost reduction!

9. Advice scope reduction
 - *Scope of the whole project, not of testing*
10. Create a checklist to help you focus on cost awareness
 - *Use this list every day!*
11. Don't produce waste! Think before you produce something!
 - *Don't document because you're supposed to according to your process/manual/guideline*
 - *That's how we do things here, run on autopilot*
 - *Is it necessary? Can we reuse it? What is the benefit?*
12. Assign one team member to cost reduction / awareness
 - *(S)He'll save more than (s)he costs*

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Top 20 – Test Improvement suggestions

!Focusing on cost reduction!

13. Reduce the number of meetings and participants
 - *Meetings tend to be time consuming and unproductive*
14. Execute the plan - nothing more, nothing less
 - *Watch for test scope creep!*
15. Force (external) decision making
 - *If possible, without becoming a nuisance*
16. Stop nagging, start testing!
 - *Look at the big picture, not just testing*



Top 20 – Test Improvement suggestions

!Focusing on cost reduction!

17. Be an active, omnipresent manager
 - *Focus on tasks, targets, getting the job done*
 - *Management by involvement instead of by spreadsheet*
18. Two to four metrics, no more!
 - *Avoid / Stop metrics mania*
19. Enable business testers to focus on testing tasks and targets
 - *Get them out of the business as usual!*
20. Use standard tools like Excel, Word, ...
 - *Instead of expensive test tools*



Term	Impact	Investment	Ease of implementation
Within 2 weeks	Varies	Varies	Varies

Runners-up

- Truly help, coach and support development
- **Work with functional teams**
- Focus on "are we making the right things"
 - preventing changes and defects
- **Get Functional Testers involved in development testing**
- Manage according to the risks (project - test - product)
- **Combine test experience / expertise with business experience / expertise**
- Defect Analysis: act instantly, but only correct / improve where necessary!



Term	Impact	Investment	Ease of implementation
Within 2 months and long term	Varies	Varies	Varies

A random selection

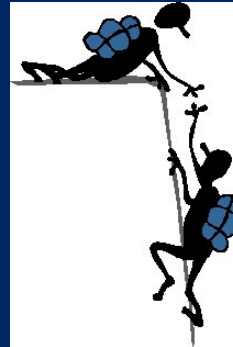
- Exploratory reduction
- **Smart outsourcing**
- Back sourcing
- **Apply risk based principles**
- Minimize handovers
- **Adopt agile principles**
- Working in shifts
- **Combine seniors/juniors**
- Key users as testers
- **Reuse knowledge**
- Assign "test runner" for batches, jobs, ...
- **Assign parallel tasks**
- Review and walkthrough
- **ISTQB for all**
- Proof of concept
-



Remarkable

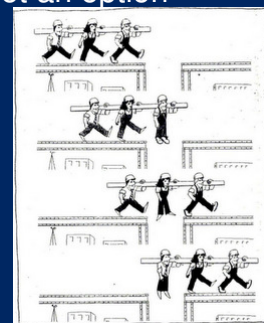
- “Emergency” Cost Reduction starts with
 - Test Management and/or Organization
 - Mindset

Look at things differently
 “focus”,
 “change”,
 “yes we can”



Implementation

- Do it now!
 - Tomorrow is too late, postponement is not an option
- Work on mindset, morale, team spirit!
 - We have achieved it!
 - Cost reduction is scoring!
- Integrate the selected improvements in your test strategy and test plan
- Change from management into leadership



Implementation

Remember:

- Testing itself –
“finding defects as early as possible”
– is still our most important task

Be aware:

- You're changing with the shop open
- Stick to test improvement, mind co-dependency



Finally

- Make cost reduction a natural behavior, a team sport!
- Use a simple do-it-yourself way towards cost reduction
 - Prioritize and implement ideal measures:
 - Immediate effective
 - High impact
 - Free
 - Easy to implement
- Start today, e.g. with the set of measures offered in this talk



Become test leader Don't stay behind as test manager

The manager administers, the leader innovates
The manager maintains, the leader develops
The manager relies on systems and tools, the leader on people
The manager counts on control, the leader counts on trust
The manager does things right, the leader does the right thing



Questions?

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Thank you!

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About the speaker

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In the testing world since 1989, Ruud Teunissen has held numerous test functions in different organizations and projects: tester, test specialist, test consultant, test manager, etcetera. Ruud is co-author of Software Testing - A Guide to the TMap® Approach and is a frequent speaker at (inter)national conferences and workshops. He was a member of the program committee for Quality Week Europe and EuroSTAR. Ruud is currently International Test Consultant at Polteq IT Services BV.



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