# How TMap® can help testers

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## My test history

- In testing since 1984
- Started with test automation from laziness
- Missed situations to be tested: how to test?
- Test techniques needed!
- 1985-1987 Dutch Tax Office test approach with a internal book, which was sold on the market
- 1989 Report: unstructured testing is expensive and not manageable: projects out of control
- 1995 all experiences brought together: TMap
- In 1999: update, more risk thinking



#### Test & IT schools I know

#### Test schools

- Context-driven
- Exploratory testing
- ISTQB (+200,000 certified testers)
- TMap (+50,000 books worldwide, certification is growing)
- Some local Dutch schools, mostly process based

#### Project management

- Testing in agile projects (test is not mentioned in the agile manifesto & principles), we have a point of view document TMap.net
- Testing and PRINCE2, we have a white paper in the book TMap Test Topics



## Principles behind

- Testing is done in 'command', control is in place
- Testing as short as possible on the critical path of the project
- Makes is possible to do fixed price test assignments by a having
  - estimation techniques and productivity metrics
- Meant for all levels of test
- TMap = experienced based, always developed with customers and colleagues

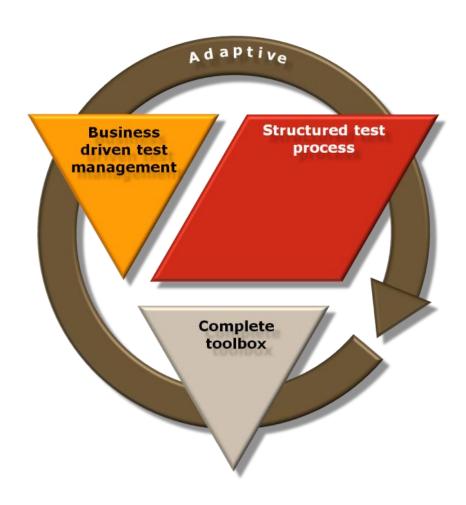


## TMap typical

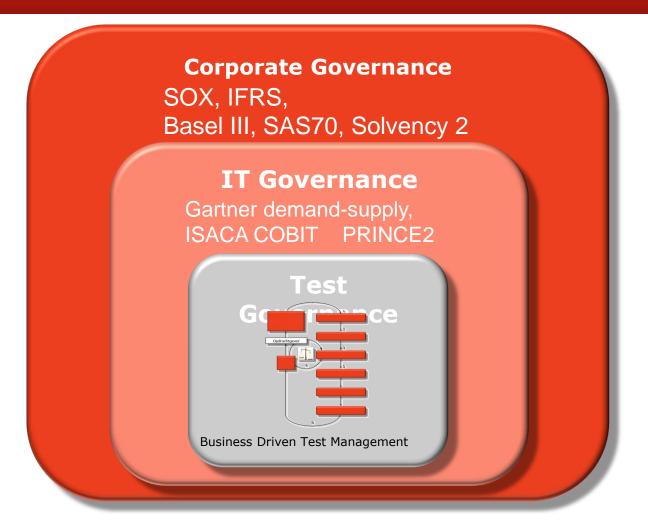
- For the assigner / client / manager / boss → business case driven: time or cost or risk (BDTM)
- Make the process manageable → processes and toolbox (how-to)
  - The test process must be as short as possible on the critical path of the project
- Use of TMap in the project context → Adaptive
- Process is like PRINCE2 product based
- TMap is open
   Product templates and checklists are for available on TMap.net



## TMap NEXT Essential



#### Governance



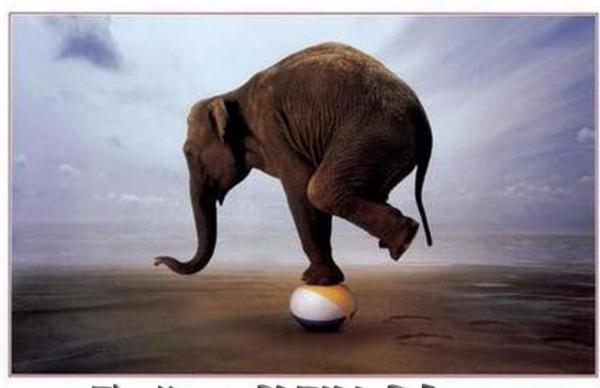
Client/business makes always the decision



## Test Governance based on Business Case

Results

Risks



Time

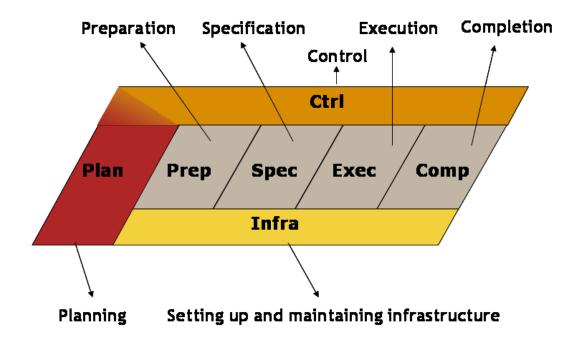
Costs

The Key to BDTM is Balance

Client/business makes always the decision

SOGET

## Structured test process



## Complete tool box

- Techniques
  - how to test
- Infrastructure
  - where and with what to test
- Organisation
  - who tests in what organisation



## **Adaptive**

Preserve infrastructure Establish assignment, use clients language Intake test basis, infrastructure and test object Determine test process risks and measures Control, report and adjust Preserve test ware Exploratory test Insight and support to tailor your own toolset Feedback priorities in result, risk, time or money **Evaluation** Useful tools Pilot test tool introduction Evolution of a test organisation Adapted by more than 400 tips, cases and examples

## How to organize testing?

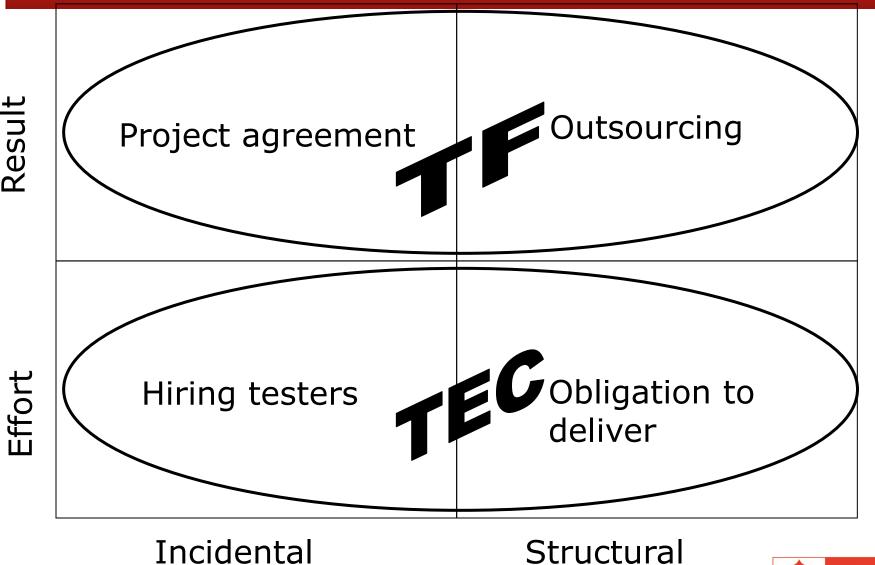
- Test policy
- Permanent test organization
- Test organization in projects
- Test professional
- Test roles

Permanent test organisation



## Supplier of test services

Result



## PTO offers test services

ELEMENTS ACTIVITIES	supporting	presentation	training	coaching	advising	checking	Quality checking	execution of audit	reviewing	oreserving	managing	maintaining	exec uting	executing	coordinating	R&D	developing	mplementing
Testtools																		
Defect management to ol		Х	Х	Х	Х						Х	Х		XE	ΧE			
Test data tool																	Х	Х
Test environment																		
ST environment														XR	XR			
AT environment														XR	XR			
Structured testing																		
Test plan		Х	Х	Х	Х						XR	XR		XE	XE			
Logical test design		Х	Х	Х	Х						XR	XR		XE	XE			
Physical test design		Х	Х	Х	Х						XR	XR		XE	XE			
Test scenario		Х	Х	Х	Х						XR	XR		XE	XE			
Test execution		Х	Х	Х	Х						XR	XR		XE	XE			

X = Service without obligation

XE = Service with obligation of effort

XR = Service with obligation to deliver results

Most easy: use a web portal



## How to manage the test?

#### Plan

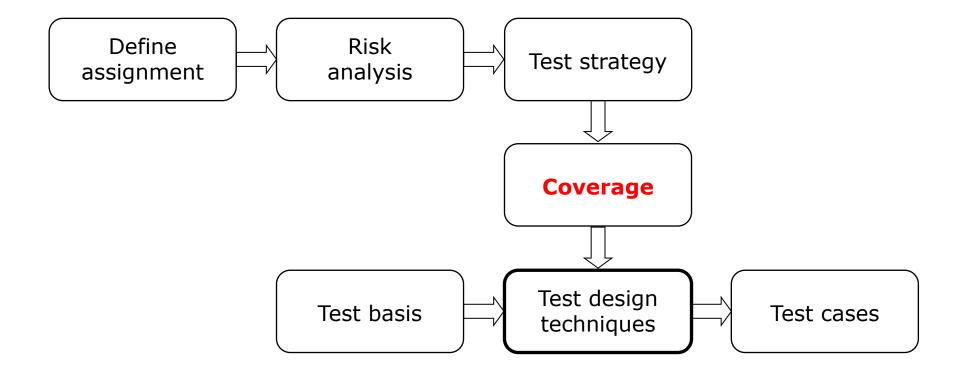
- Master Test Plan
- Test plans for
  - Development test, system test and acceptance test
  - Test unit of work

#### Estimation

- 4 different test effort techniques
- Goal Question Metrics applied for testing but don't forget
  - a repeatable process allows measuring (with test units)
  - a common process allows metrics conclusions
- Some metrics



## What do I cover with the test?

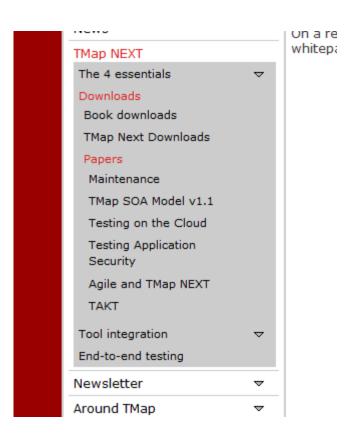


## From coverage to test cases

Checklist Right path/false path Pairwise Testing Orthogonal arrays Equivalence classes Test situations Basis technique Boundary value analysis **Paths Decision Table test** Decision points (a.o. MC **Data Combination Test** CRUD **Elementary Comparison Test Operational Profiles** Test cases **Load Profiles** Syntactic Test Semantic Test **Use Case Test** Test basis **Process Cycle Test** Data Cycle Test **Exploratory test Error Guessing** Real Life Test

## Follows the trends - some history

#### On www.tmap.net



#### Books

- Testing embedded systems
- Topics = bundled white papers: light testing, outsourcing, packages(ERP), components, datawarehousing/BI, Exploratory testing, system integration testing, RUP, DSDM, PRINCE2
- NEXT: the 2006 complete makeover
- BDTM: for government execution
- End-to-End testing
- Cloud testing



## Recently published

#### Method

- 2008 Business Driven test management, book
- 2009 End-to-End testing, book & material
- 2010 Agile and testing, point-of-view
- 2011 Testing applications in the <u>cloud</u>, e-book
- 2011 Model based test cases design, tool

#### In development tools

- IBM/RUP TMap plug-in
- Microsoft Visual Studio 2010 TMap-template



#### **Future innovations**

#### Working on white papers

- Agile and testing
- Testing of mobile app's
- Test data management
- Test environment management

#### **Future**

- TMap and ISO 29119, the new test standard
- TMap and ISO 25xxx, Software product Quality Requirements and Evaluation (SQuaRE)



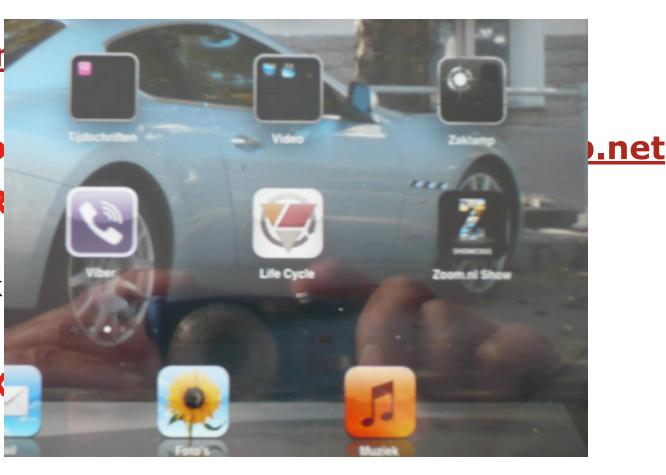
#### Results

#### Benefits achieved with applying TMap Next

- 60% reduction of test specification effort, make only effective test cases
- 50-90% reduction of production incidents
- 20% reduction of test time
- Predictable quality for go live
- Testing process under control

#### Accessible

- Books
- www.tmap.r checklists
- Subscribe to
- TMapp as FR
  - Apple store
  - Android mark
  - = Summary of TMap NEX



## Be adaptive!....use it!





