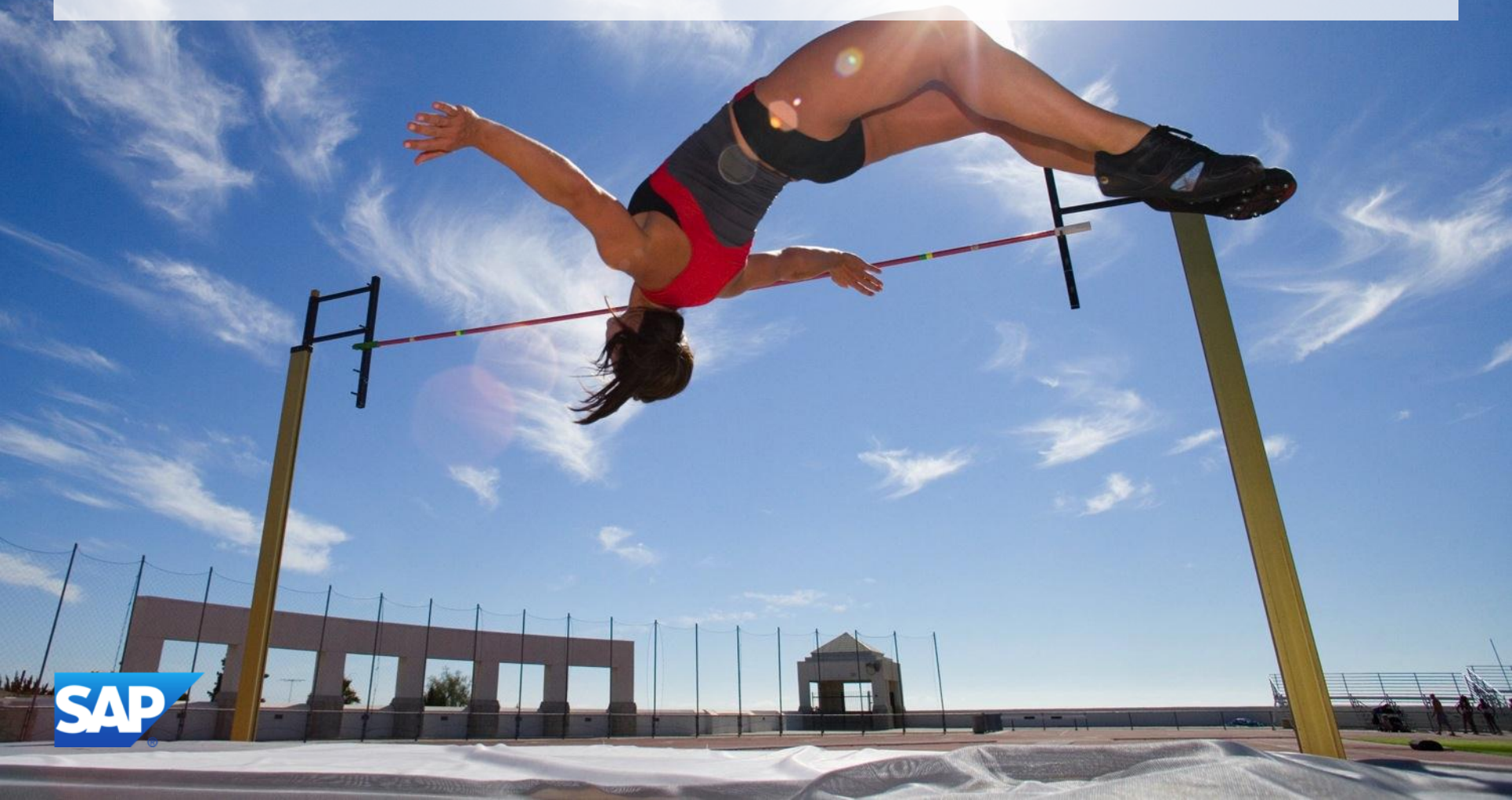


# Minimize IT Risks with Efficient Test Management

Robin Schönwald / SAP Consulting  
15.03.2013



**SAP**



# Introduction

Efficient Testing for SAP Solutions



# Change is critical to Business Innovation...

## ... and impacts your IT-Solution

### Business Drivers

- ❑ Changed business processes
- ❑ M & A and reorganizations
- ❑ New products, vendors

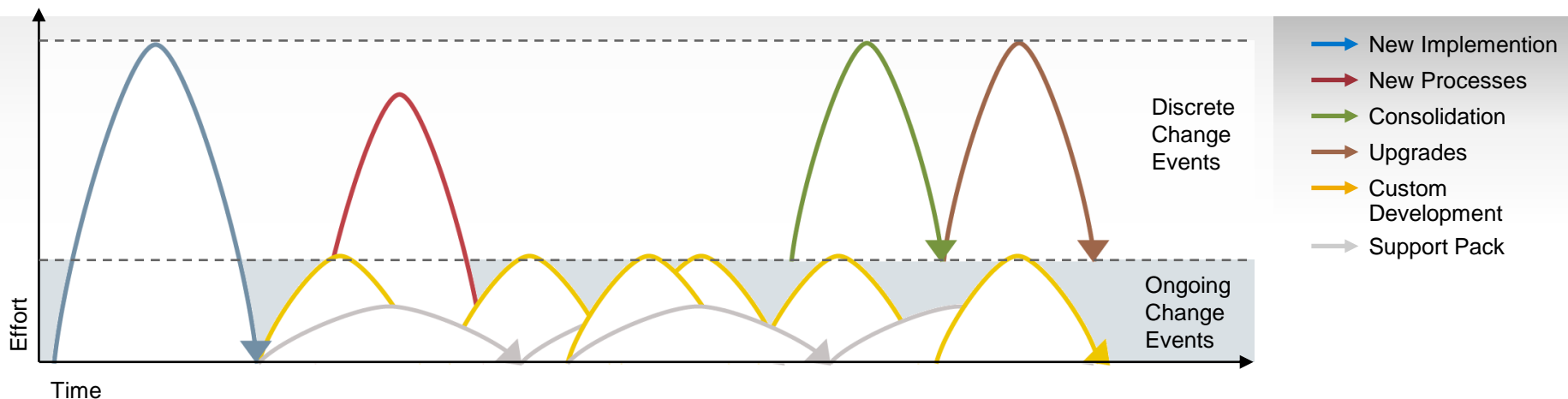
### Compliance Drivers

- ❑ Governance
- ❑ Risk management
- ❑ Compliance
- ❑ Examples: SOX, SEC, FDA, Basel 2

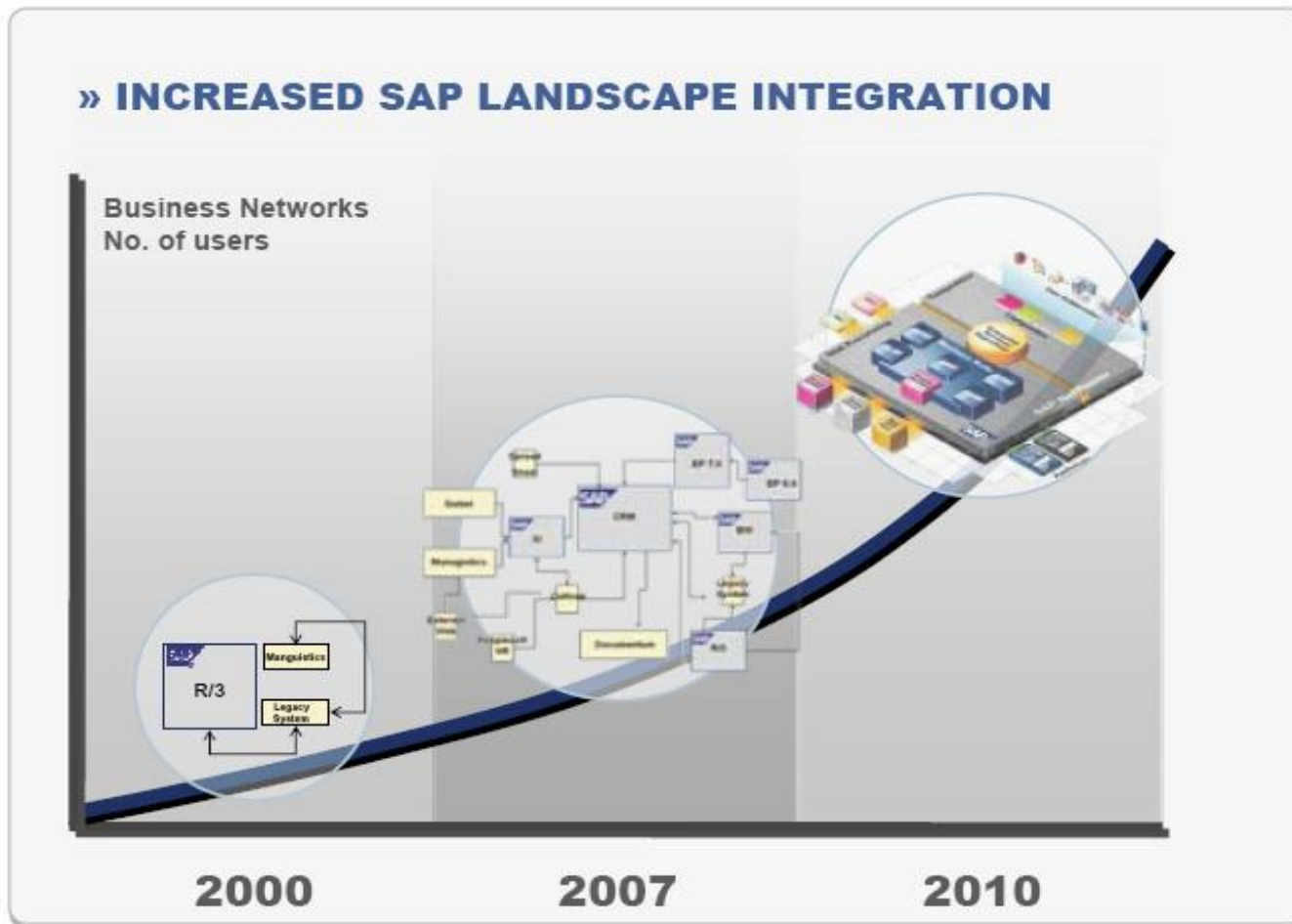
### Technology Drivers

- ❑ Maintenance
- ❑ New functionality
- ❑ Upgrades
- ❑ Global rollouts

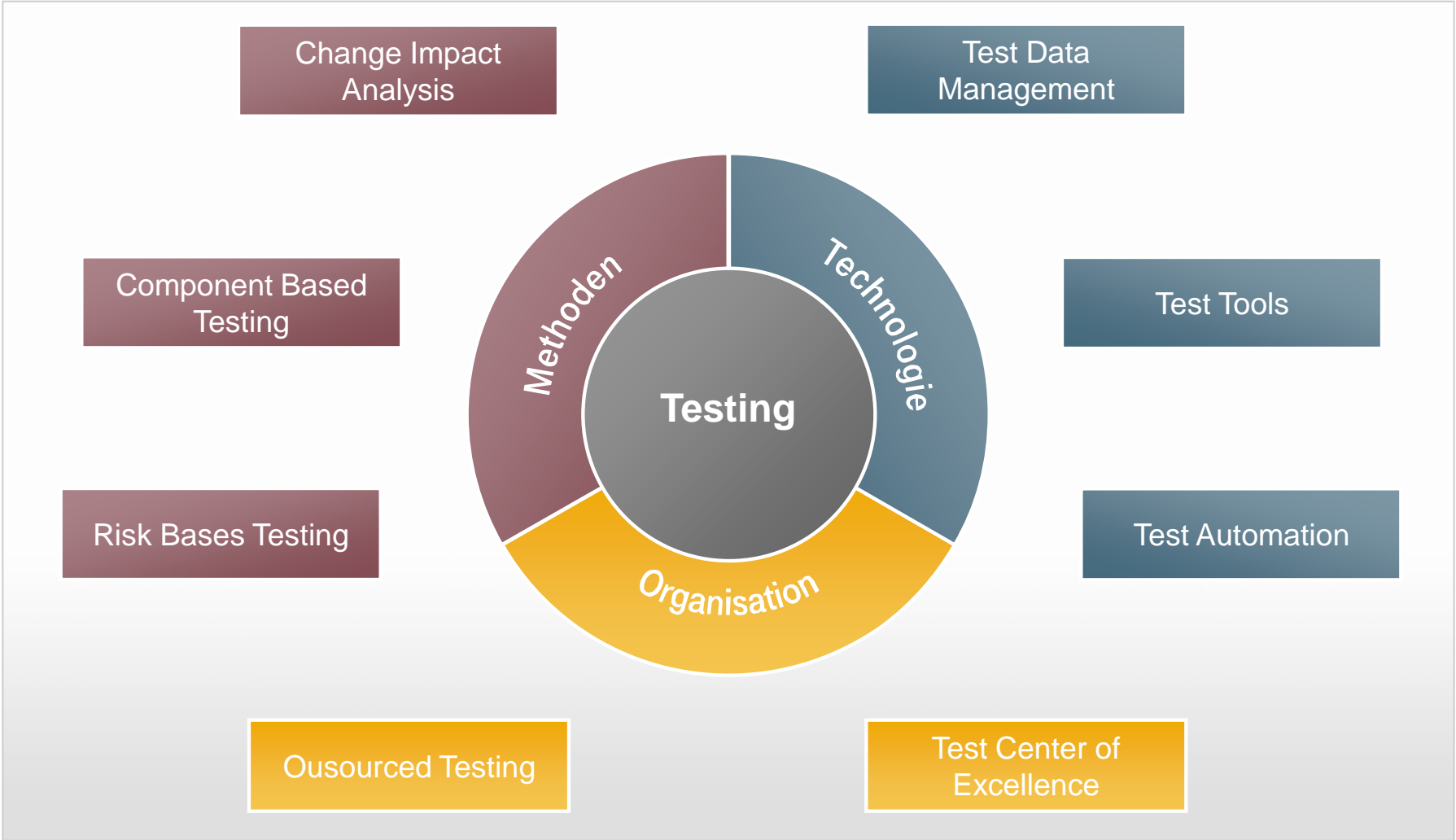
...these change events impact the life cycle of enterprise solutions



# Testing was easy back in 2000...



# Testing has many different aspects





# Possible Savings

Effective testing for Enterprise Solutions

# Do you know your cost drivers?

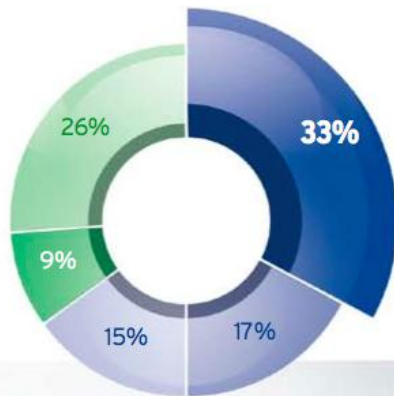
## Transparency and Reporting

For most companies, testing is a vital investment in the product

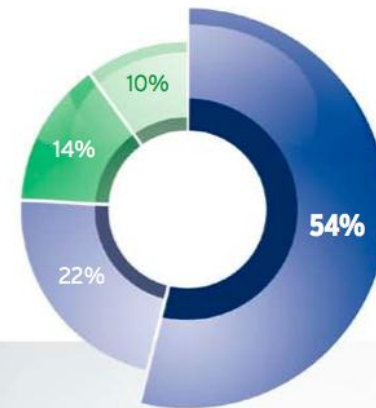
But the majority has no idea, how many persons are working as testers.

- Testing is a vital investment in the product
- Testing raises the cost efficiency of software production
- Test tools create true added value in the company
- Testing is a necessary evil
- Other/no response

- Don't know/no response
- 10 to 20 per cent
- 21 to 40 per cent
- Over 40 per cent



Source: PAC Software Testing Study 2008



Source: PAC Software Testing Study 2008

# Where Test Costs Come From



## Resources

Test Case Definition  
Preparation and Execution  
Reporting



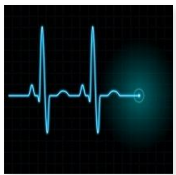
## Test Infrastructure

Hardware  
Software  
Administration



## Test Tool Licenses

Test Management  
Test Automation  
Load- and Performance Test



## Operating

Down-Time

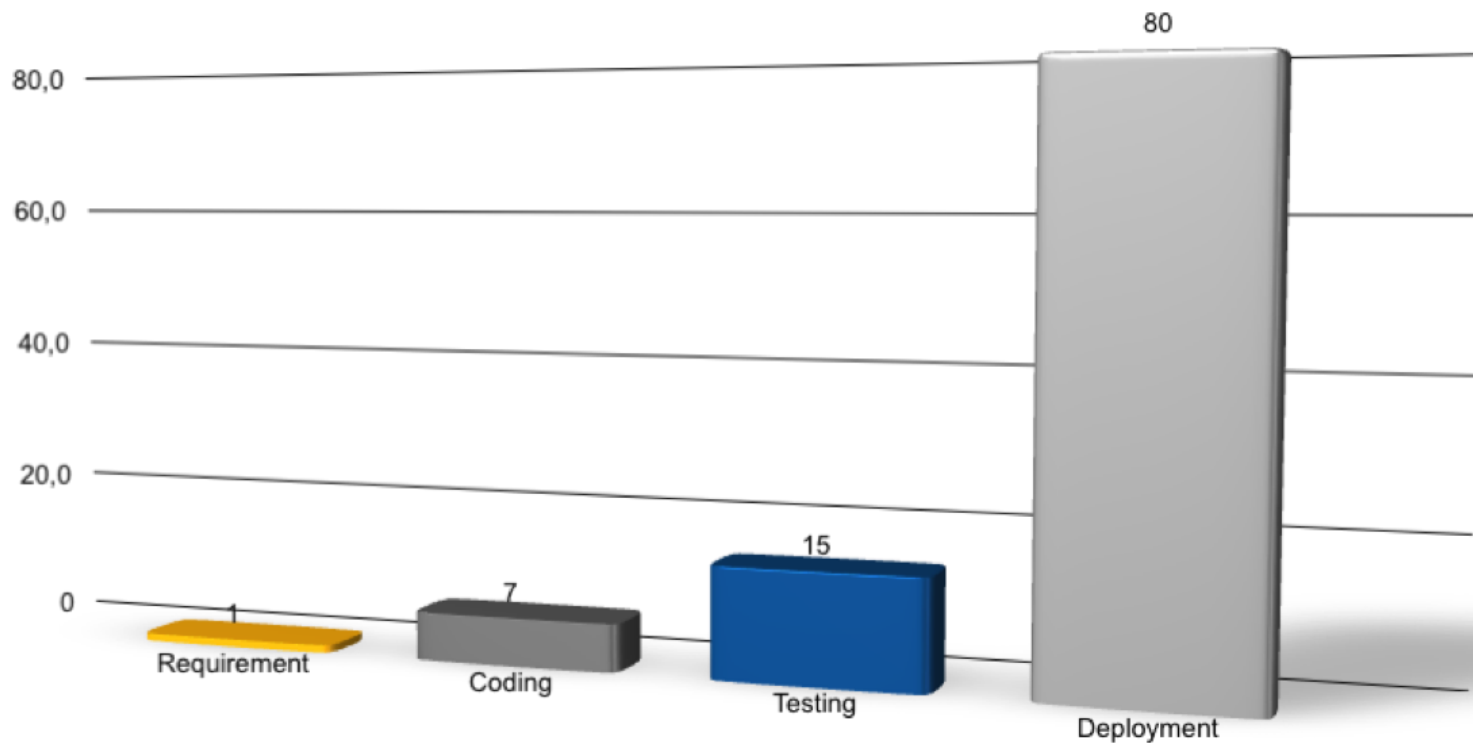


## Requirements Definition

Defects



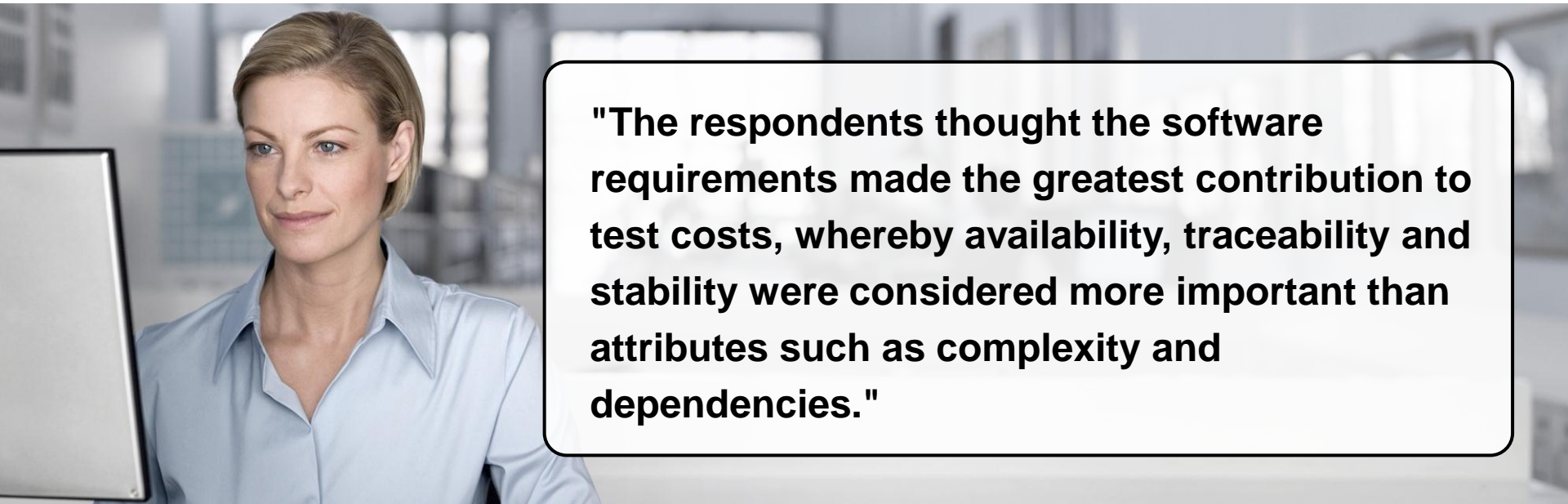
# It is much more expensive to fix a defect at a later time



# Possible Saving #1:

## Requirements Analysis and Requirements Management

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**"The respondents thought the software requirements made the greatest contribution to test costs, whereby availability, traceability and stability were considered more important than attributes such as complexity and dependencies."**

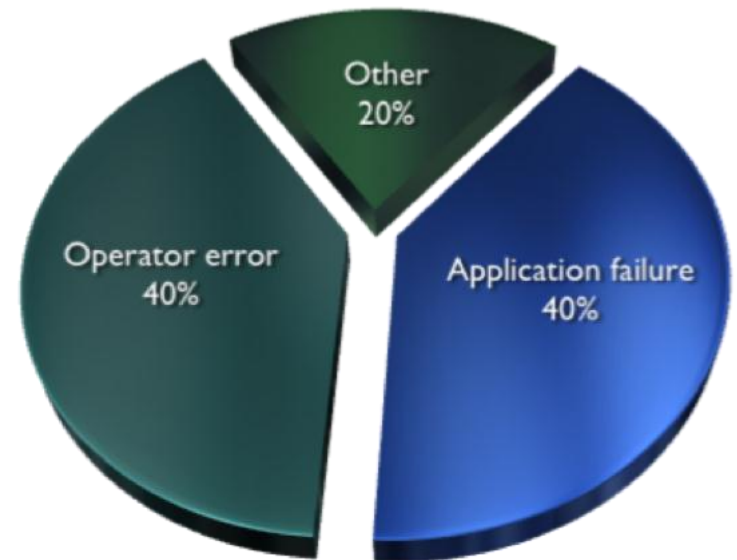
# Possible Savings #2: Quality Optimizing in Operations

## Operation downtime

How much does one hour downtime cost?  
Or one day?

- Real expenses
- Loss of reputation

Up to 80 percent of unplanned downtime is due to failures caused by people and processes



IT Operations are important\*

## Customer success stories

- Optimized test-, requirements and release management leads up to 20% reduced costs in IT operations (less patches and hot fixes, less incidents, less effort for error corrections)

## Possible Saving #3:

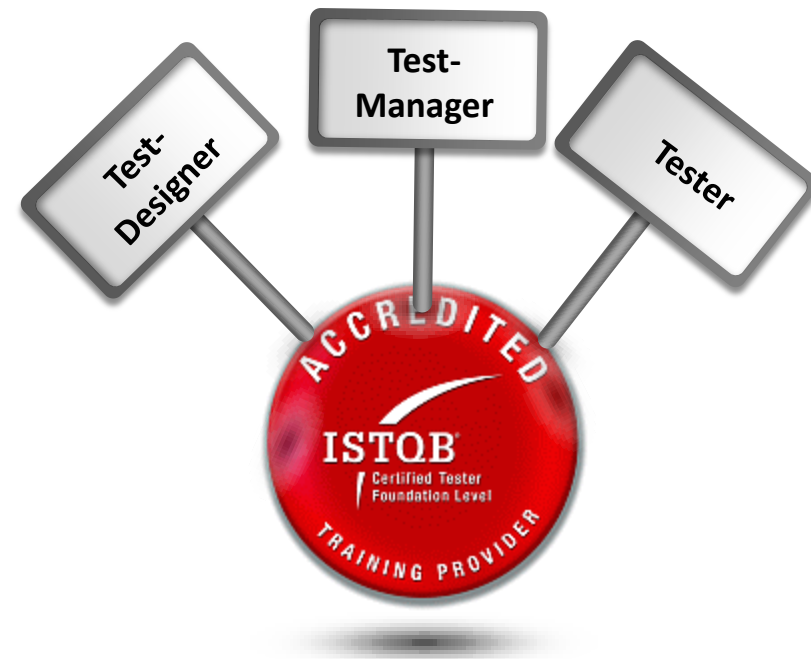
Experienced Test Manager, certified Tester

**„At the first inspection we could identify and remove 15% of redundant test cases.“**

Bernd Honsa, SAP Principal Test Consultant

**That's something your test manager should know:**

- How many test cases do we have? And who performs the tests?
- Are there any test case descriptions?
- What's about the test data? Can we reproduce the test results?
- Do we have an integrated test tool? Or do we have requirements, defects and test cases stored in different databases?
- Has the project manager all relevant information to decide about the go live?



# Do you have an appropriate Test Management Tool?

**Testfallbeschreibung**

Projekt: Name des Projektes  
Testphase: Phase des Projektes (Systemtest, Abnahmetest ...)

ID	Bezeichnung	zugehörige Anforderung	Priorität	Autor	Datum	Status	Reviewer
			hoch		1.1.1970	in Arbeit	

Beschreibung

Anhänge

Vorbedingung

Abschlussaktivität

Testschritt	Aktivität	Eingabedaten	Erwartetes Ergebnis
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			


Normalansicht Bereit Summe=0

# Possible Saving #4: Use an appropriate test tool

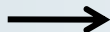
## Test Option 1



SAP Solution Manager 7.1  
**Test Workbench  
 Work Center TM**

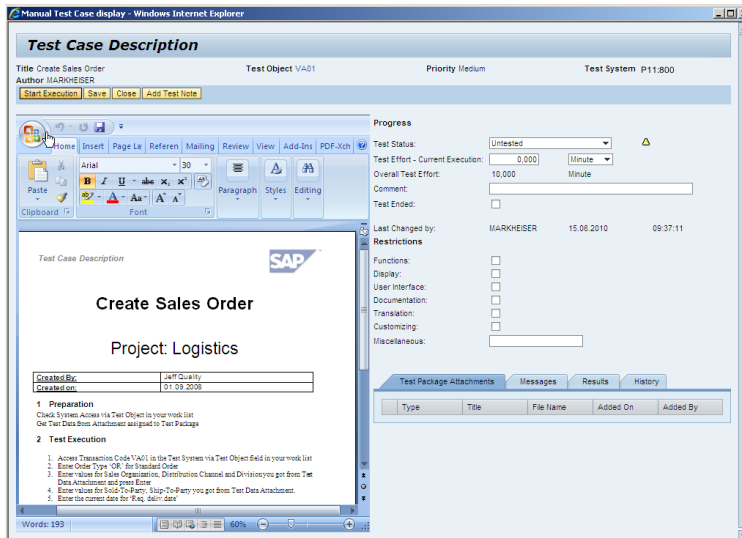
SAP Solution Manager 7.1   
**Test Automation Framework**  
 integrated ISV test automation tools

## Test Option 2

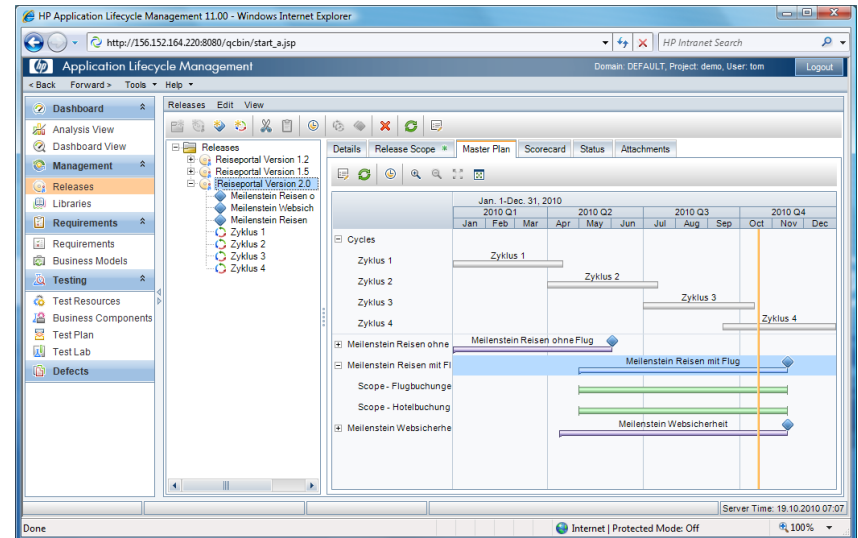


**SAP Quality Center by HP**

**SAP TAO**



SAP Solution Manager: Test Workbench

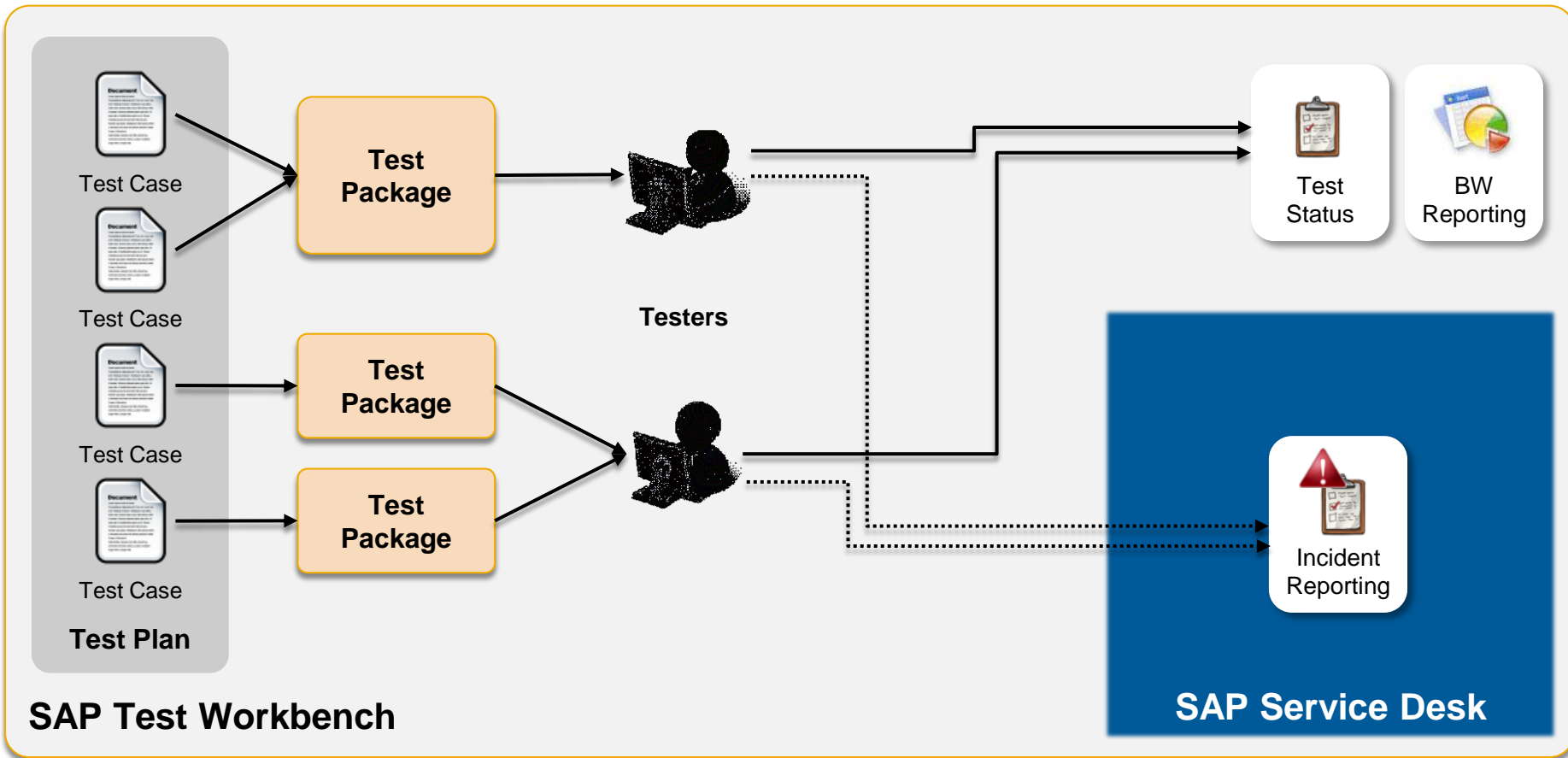


SAP Quality Center by HP

# Test Management

With SAP Test Option 1 (Test Workbench)

## SAP Solution Manager Project Structure



**SAP Test Workbench**

**SAP Service Desk**

# Manual Test Execution with SAP Solution Manager 7.1

## Microsoft Word Integration for test case manual test case execution

### Manual Test Case

Title: O2C: Create Sales Order      Test Object: Create Sales Order(VA01)  
 Author: ROTZLAWSKI      Type: Test Case Description      Priority: Medium      Test System: C5P:004

Test Case Description | Note

Home | Insert | Page Layout | References | Mailings | Review | View | PDF-XChange 4

*Test Case Description*

## Create Sales Order

### Project: AGS\_BS\_IMP

<u>Test System/Client:</u>	C5P/004
<u>User:</u>	Tester_01
<u>Password:</u>	sap123
<u>Last changed by:</u>	Mirco Rotzlawski
<u>Last changed on:</u>	2010 December 07

**1 Prerequisites**  
N/A

**2 Test Execution**

Page: 1 of 1 | Words: 131 | German (Germany)

**Progress**

Test Status: Untested ⚠

Test Effort - Current Execution: 0,00 Minute

Overall Test Effort: 0,000 Minute

Comment:

Test Ended:

Last Changed by: ROTZLAWSKI    25.07.2011    09:28:03

**Restrictions**

Functions:

Display:

User Interface:

Documentation:

Translation:

Customizing:

Miscellaneous:

Test Package Attachments | Messages(0) | Results

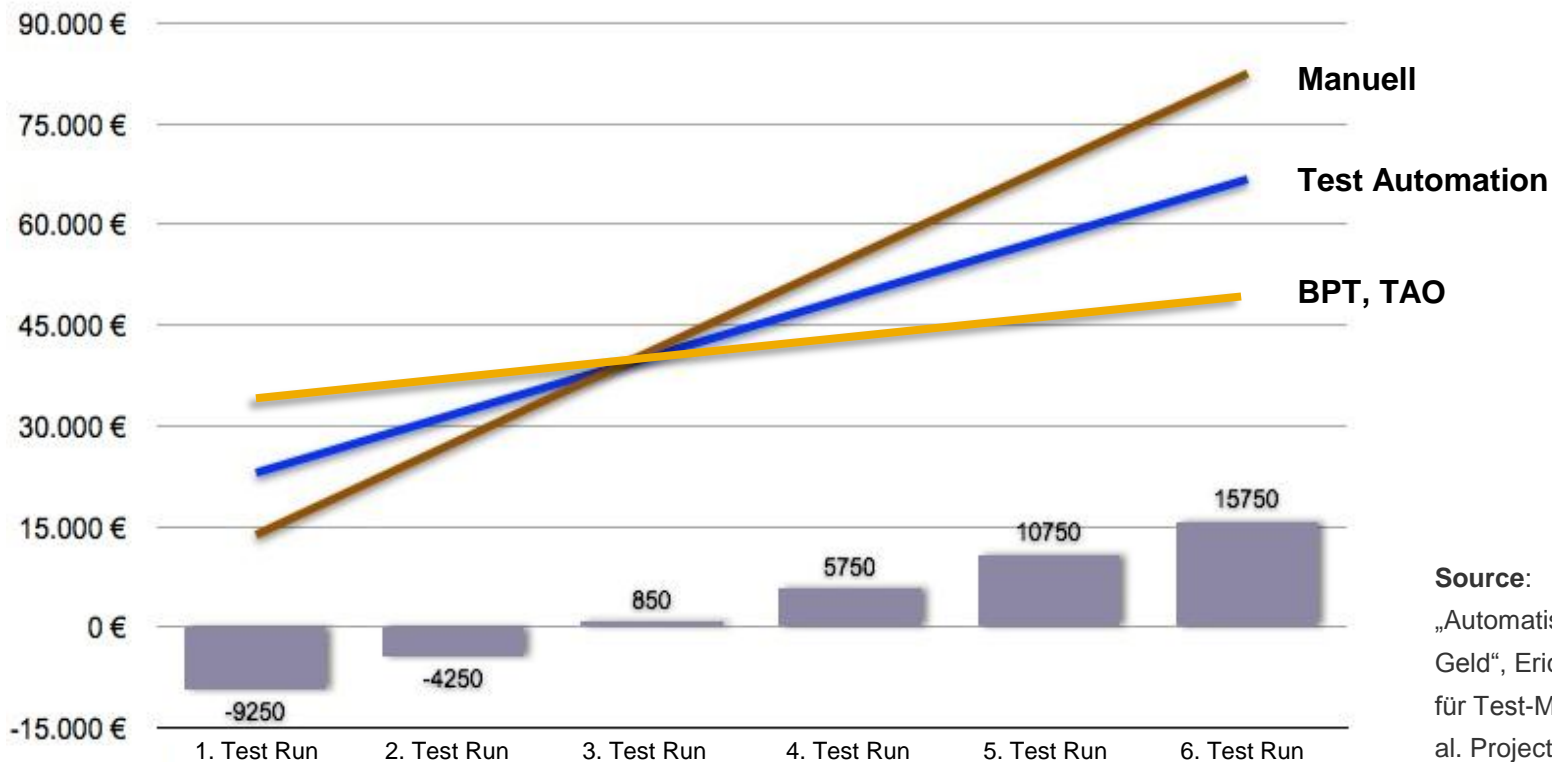
Type	Title	File Name	Added On	Added By



# Possible Saving #5: Test Automation

Computerwoche, 08.06.2009

„Automated SAP-Test saves money“



Source:  
„Automatisierter SAP-Test spart Geld“, Eric Jochum, Bereichsleiter für Test-Management bei Beck et al. Projects

# Test Automation:

## Success Factors and Results

### Critical Success Factors

- **Select the correct test cases!**  
(tests with high priority)
- Choose the right time
- Select the appropriate test tool  
(TAO, BPT, QTP)
- Don't forget test data



### Results

- Lowering manual test efforts
- Increased software quality due to effective regression testing
- Fewer costs and less errors in productive systems



Real life

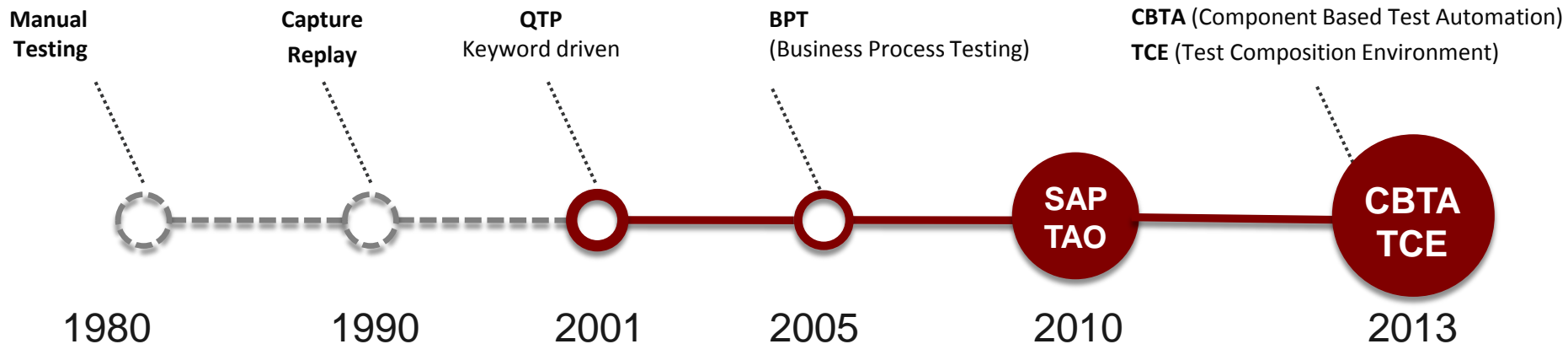
**20%-40% automated test cases are a good value for typical projects.**

# Expense Factor Maintenance

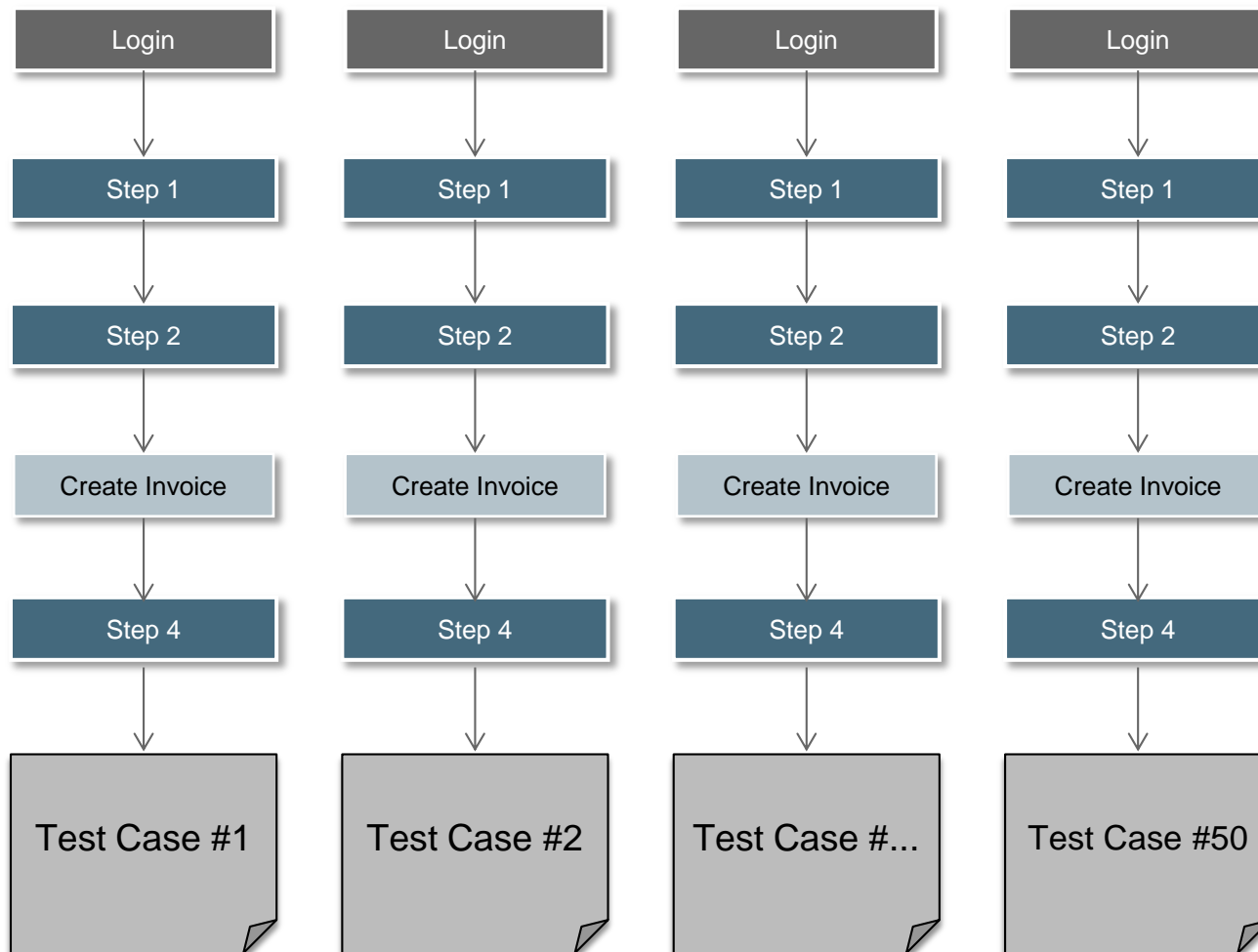


## Expense factor script maintenance

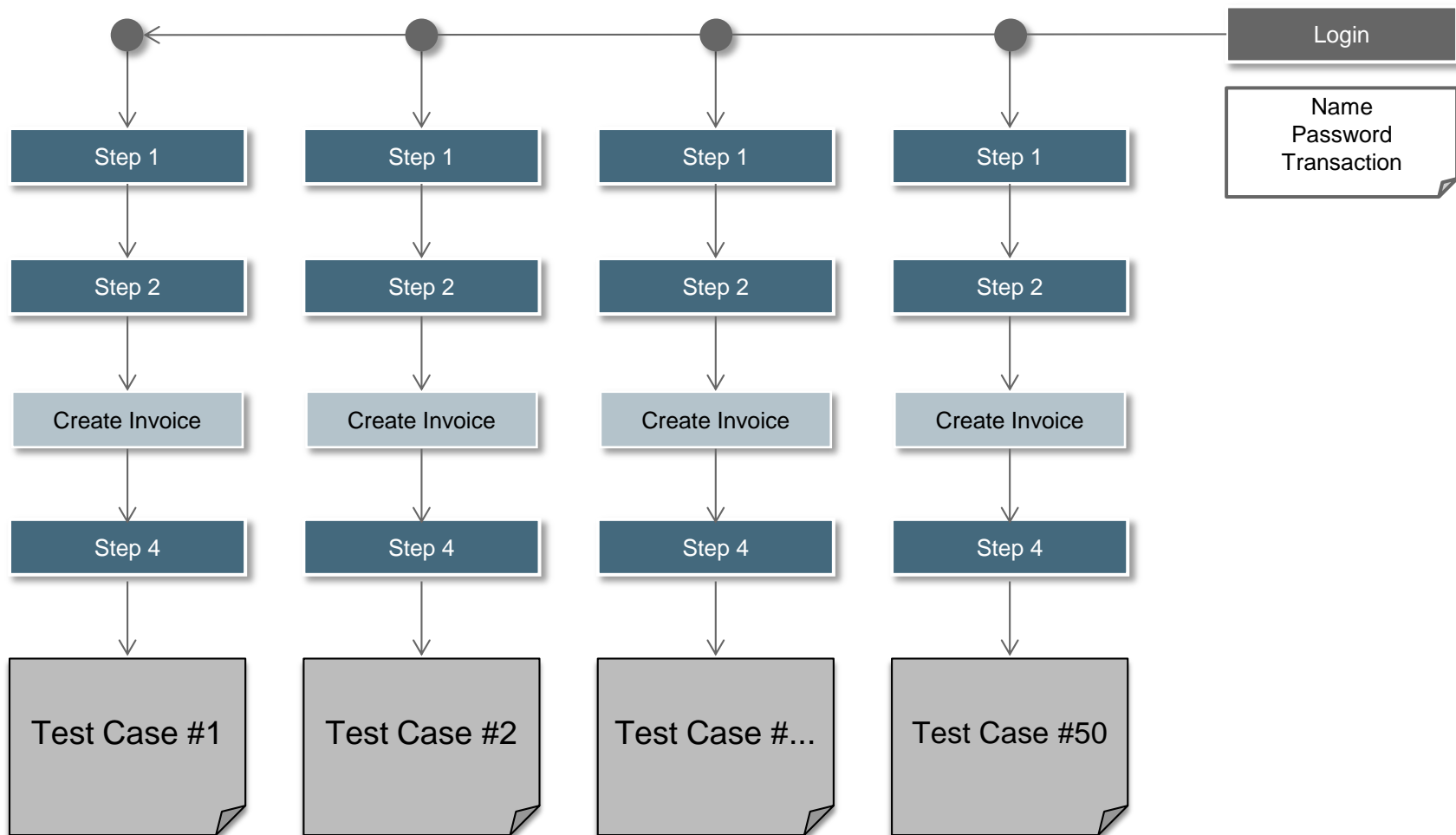
- **Test automation** is not the real challenge today
- **Test script maintenance** is the biggest cost-driver in test automation



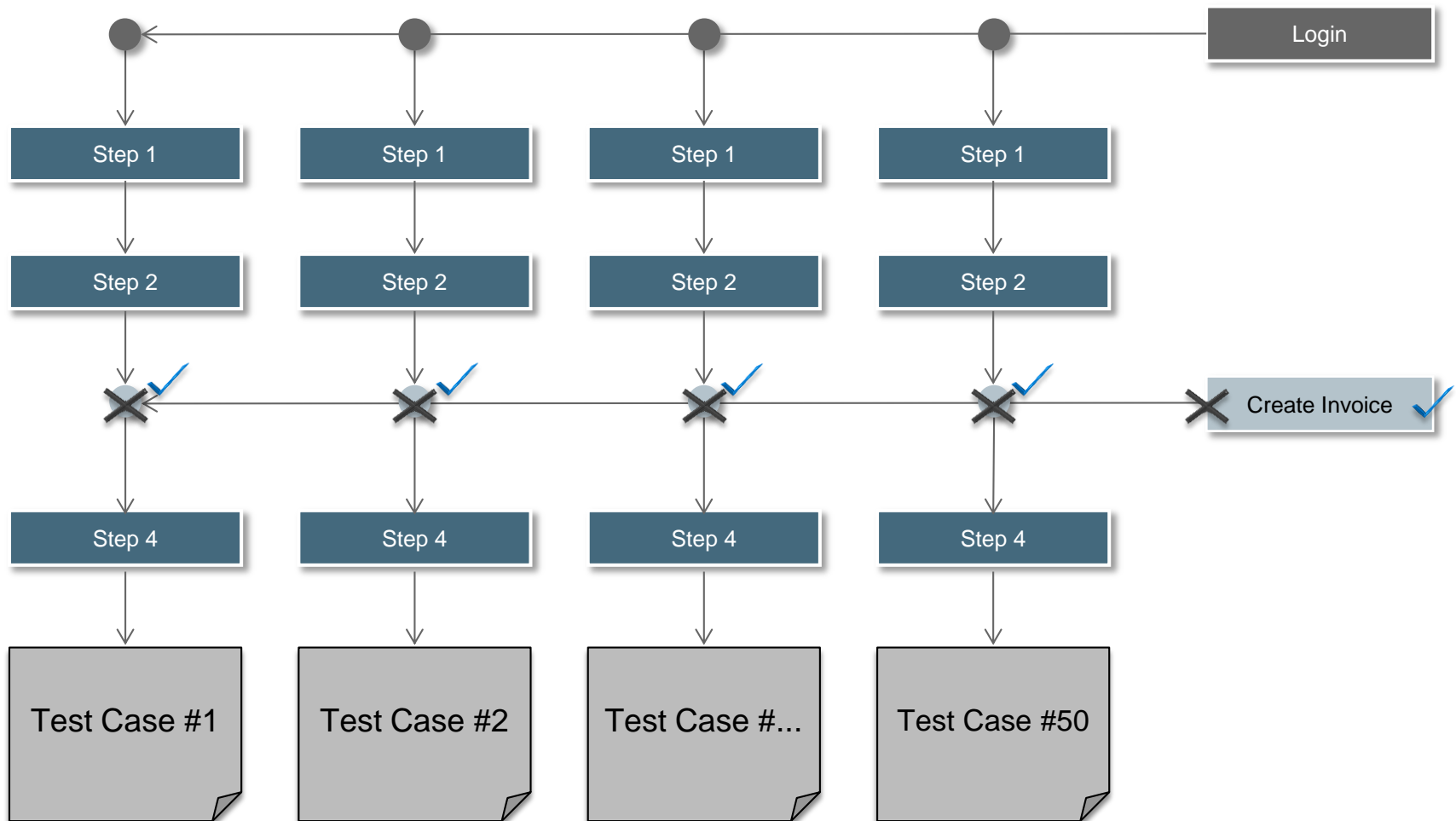
# Reduced Maintenance Overhead with Test Components



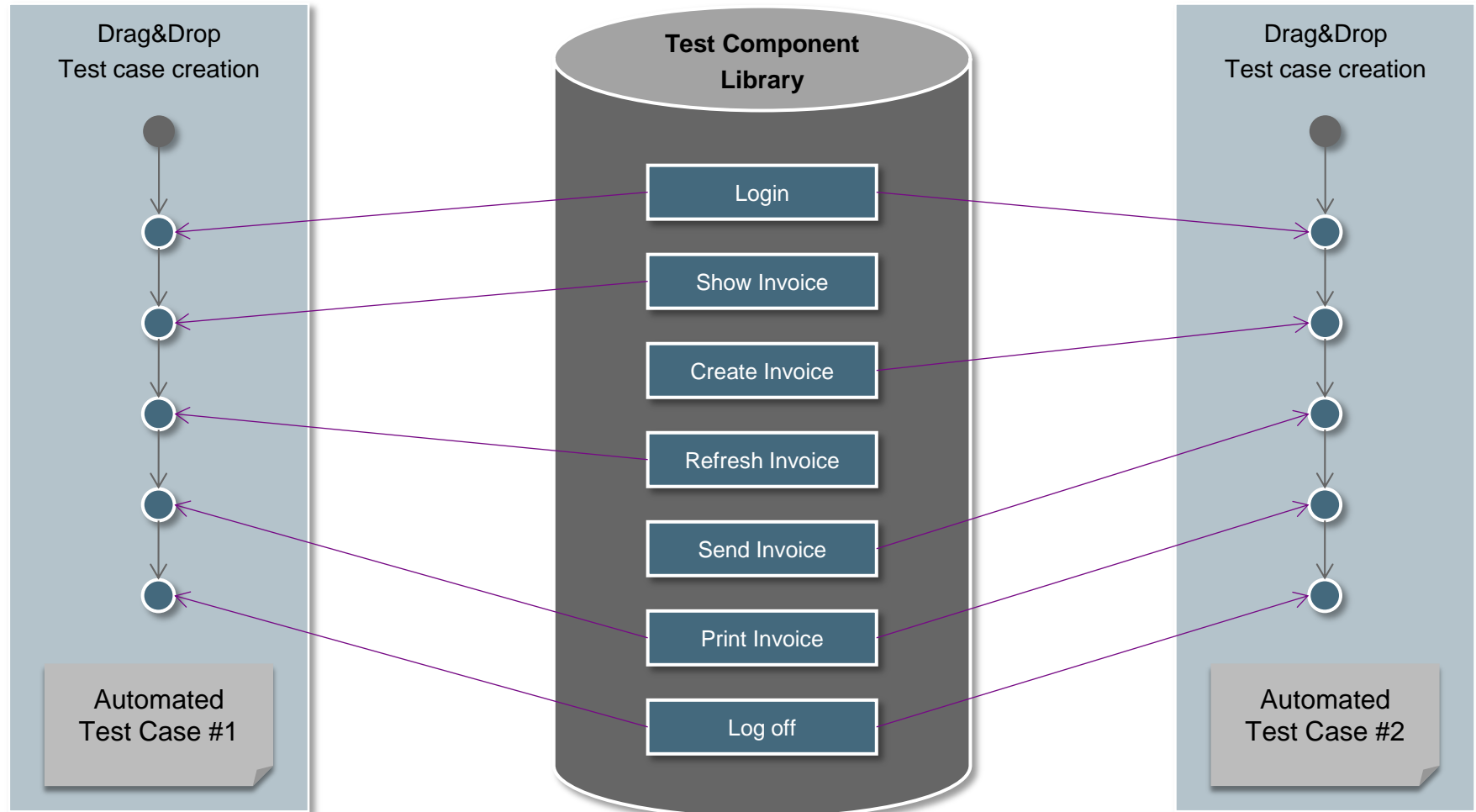
# Reduced Maintenance Overhead with Test Components



# Reduced Maintenance Overhead with Test Components



# Reduced Maintenance Overhead with Test Components



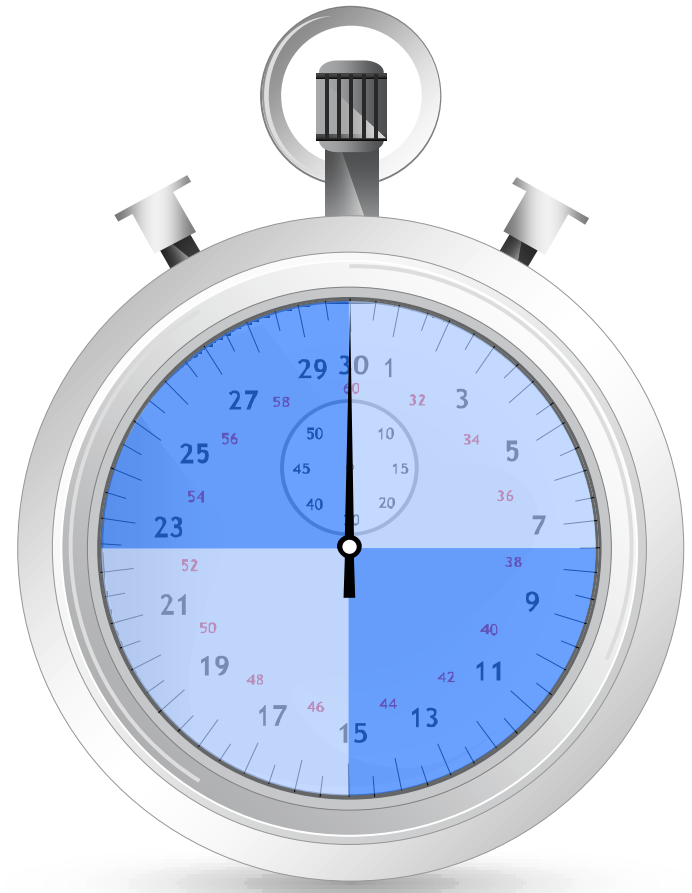
# Saving Potential #6:

## Load and Performance Testing

### Load and Performance Tests should answer this questions:

- Are software and hardware sufficient for the number of planned users?
- Do we have a reasonable performance and response time?
- Is our software architecture correct for real work in the productive system?

Without load and performance testing it is more probable that the productive system will fail or perform under the expectations



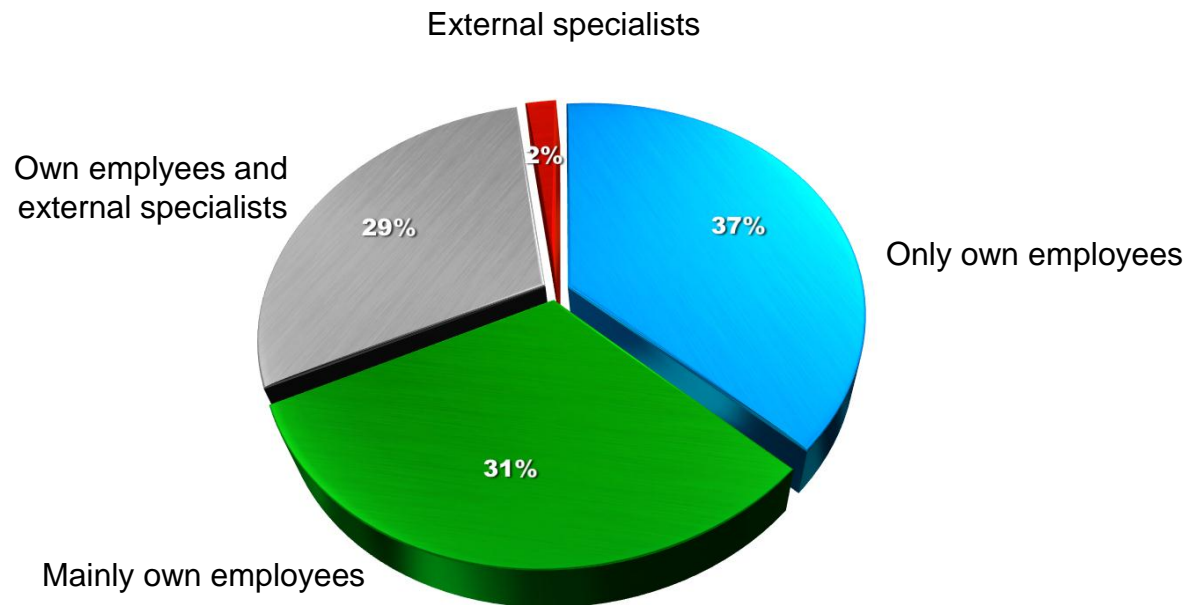


# Saving Potential #7:

## Test-Outsourcing

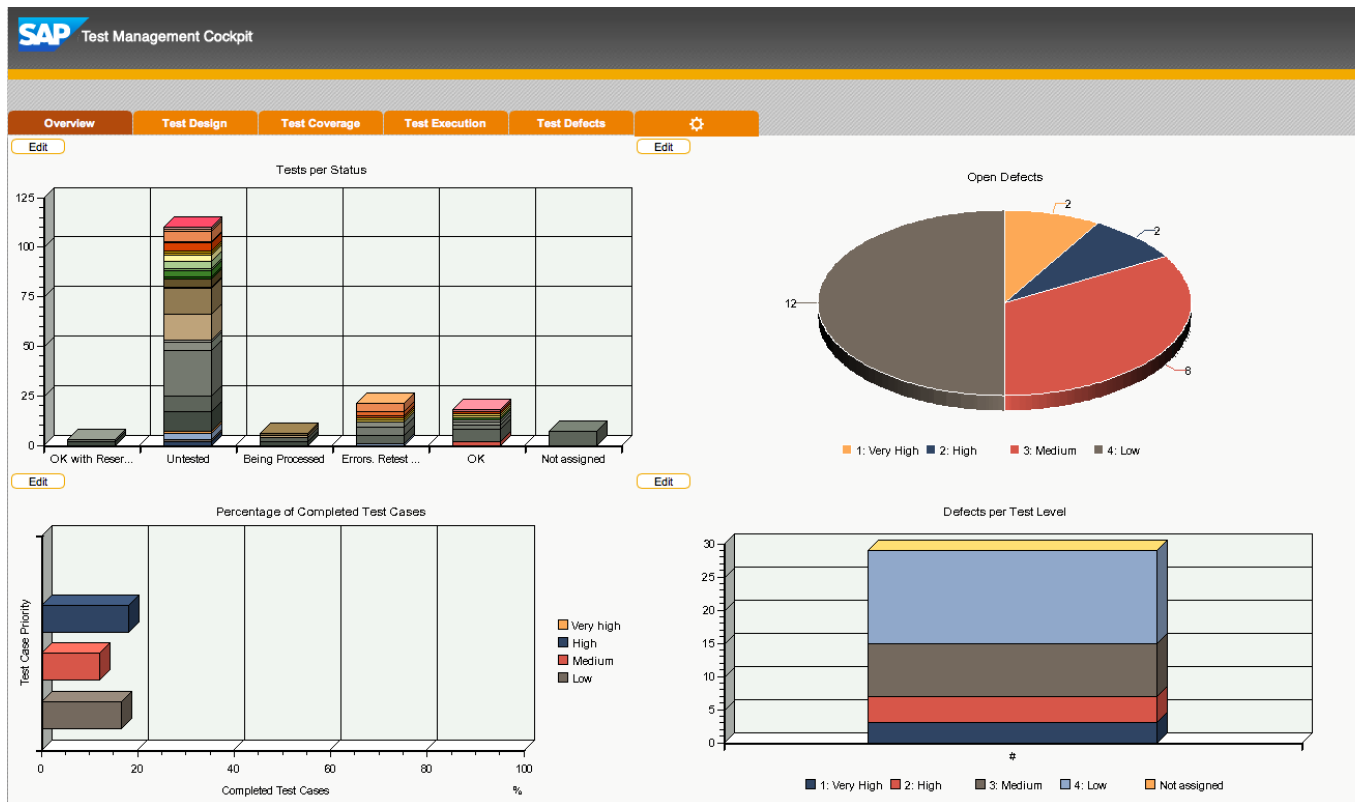
**Test-Outsourcing** (ala *Test Offshoring*) is a good chance to minimize test costs and reduce load peaks in critical project phases.

### Who performs software testing in your company?



# Saving Potential #8: KPI's and Test Reporting

**“Without KPI's and an appropriate reporting you'll never know how efficient development and testing is and how effective your optimizations are.”**





# Conclusion



# Thank You!

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