



# Workshop Testen Stenden Emmen



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2007 2008 2009 2012 2012 2014

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## Welkom

### Agenda

- Intro – wat is testen?
- Workshop deel 1: test het driehoek-programma (hele groep)
- Workshop deel 2: test het OV-programma (deelgroepen)
- Workshop deel 3: test de Robot (deelgroepen)



# Wat is testen?



## What is testing?

To make clear what tradional IT-work often turns out to be I use this flow:



Then stakeholders ask: “What’s that fixing phase?”  
And I answer: “We already know were going to make many faults so that’s where we’ll fix them”  
To which stakeholders cry: “Then don’t make these faults !!!!”





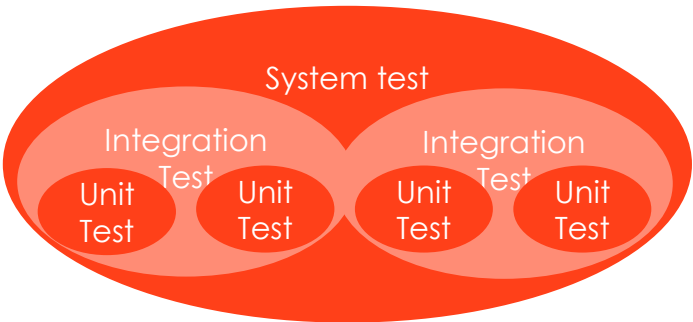
Discussie...

# Wie doet welk testwerk?



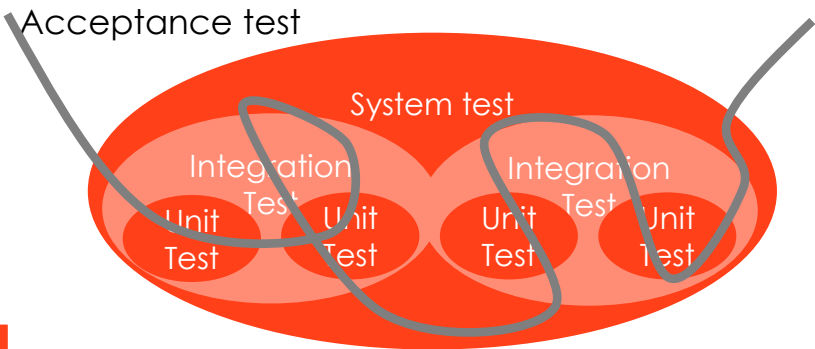
Scope of testing: Unit -, Integration -, System -

Focus on smaller or larger parts of the test object (= system under test)



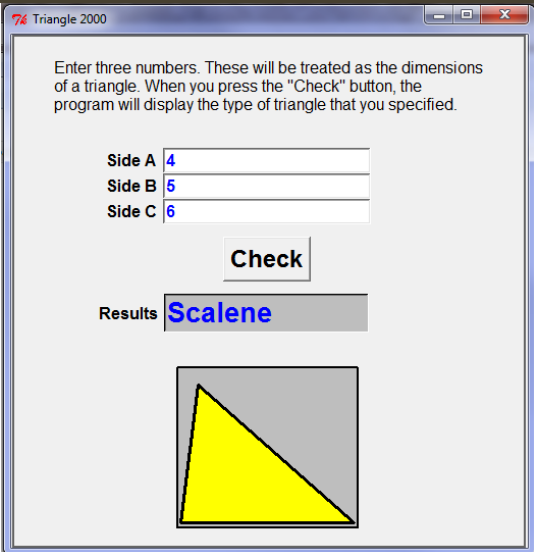
# Scope of testing: Acceptance

Focus on the use of the system, based on the business process (without reference to various parts of the system).



# Test het driehoekprogramma

- Wat zou je willen testen?
- Waarom?
- Wat verwacht je als resultaat?
- Wat gebeurt er werkelijk?
- Wat vind je daarvan?

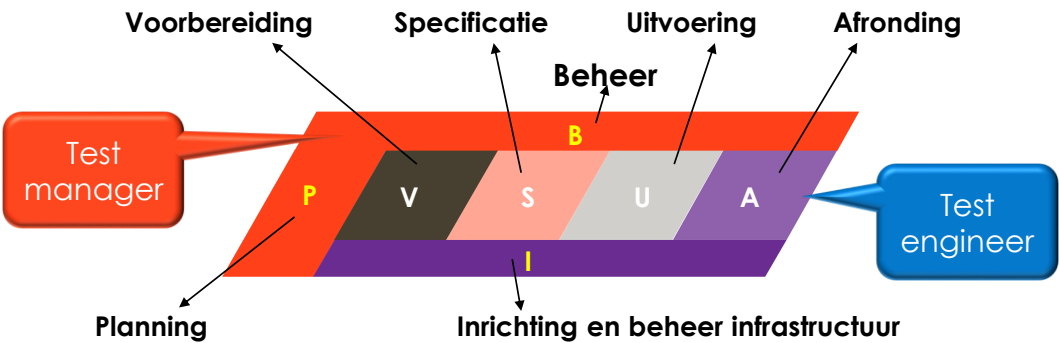


# Generieke Test Activiteiten



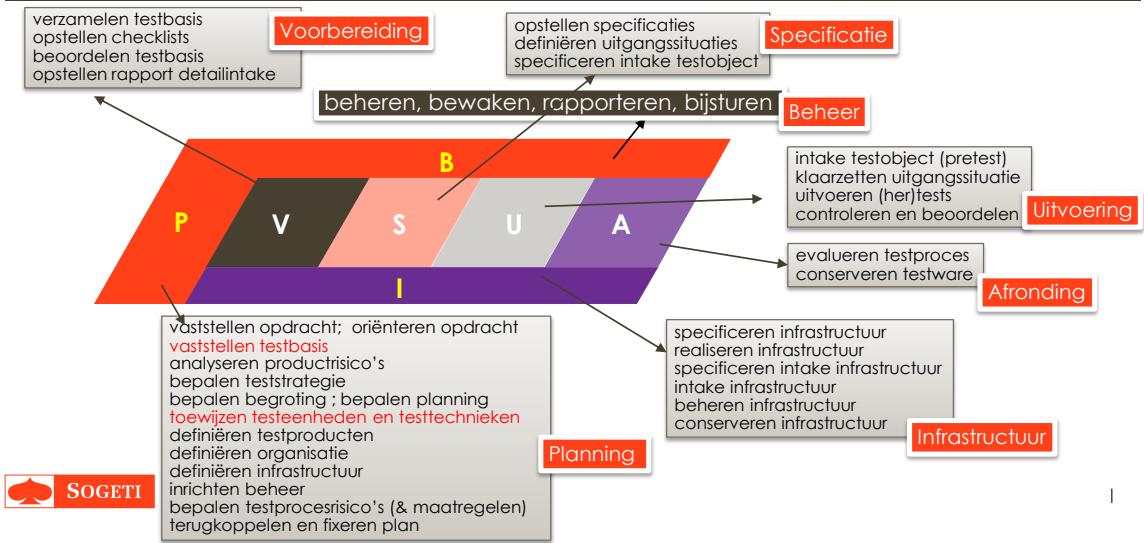
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## Activiteiten van de tester

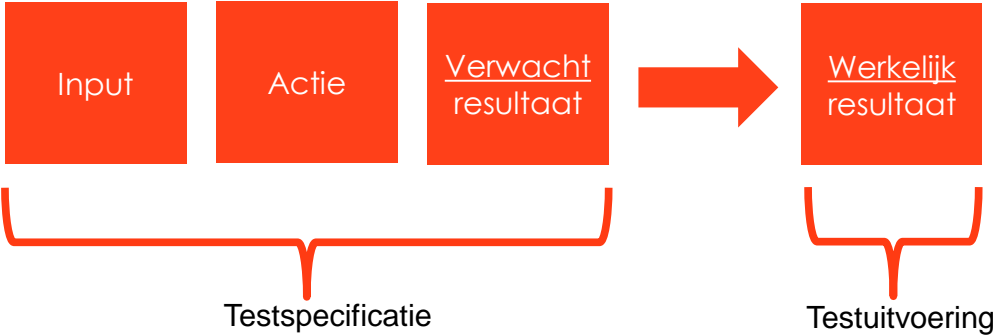


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# Faseringsmodel met activiteiten



# Een testgeval bestaat uit:

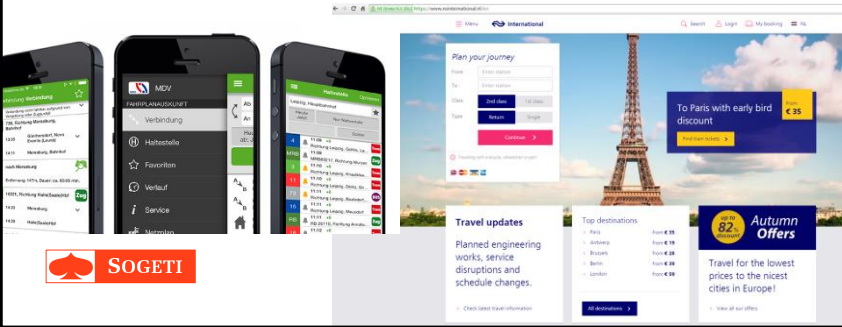


Wat is het meest belangrijke onderdeel hiervan???



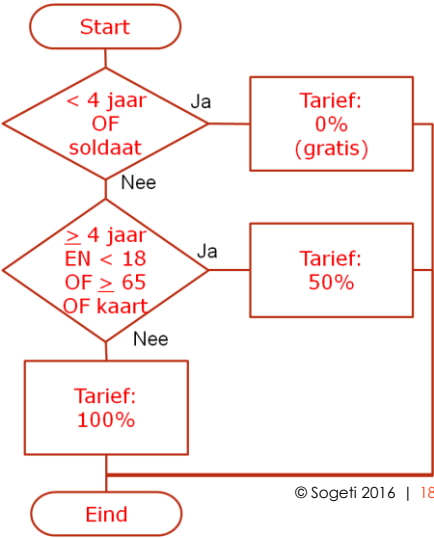
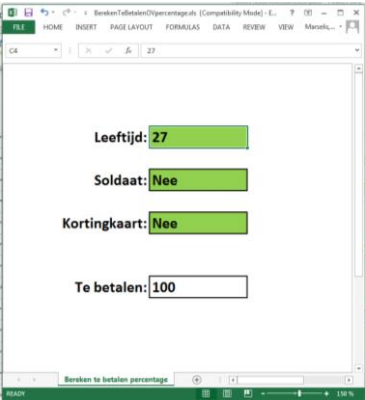
# De case: bereken het juiste OV-tarief

Er is een rekenmodule die bepaalt hoeveel korting je krijgt bij reizen in het OV.  
De rekenmodule wordt aangeroepen vanuit diverse user-interfaces.



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# OV-tarief: hoe gaan we dit testen?



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## Workshop: zelf aan de slag

Download het OV-programma van [www.marselis.eu](http://www.marselis.eu)  
(de bovenste download-link)

Begin met de testgevallen die we net samen hebben bedacht.

Bedenk in tweetalen testgevallen

Schrijf ze op, op het log-formulier

Voer het testgeval uit

Vergelijk de werkelijke output met de verwachte output

15 minuten.

Daarna gezamenlijk de resultaten bespreken.



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# Approaches



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# Test approaches van TMap HD

Experience based

Coverage based



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# Experience based approaches in TMap HD

- Experience based
1. Checklist

Used for static & dynamic testing
2. Error guessing

Based on previously encountered defects
3. Exploratory testing

Learn, design and execute in parallel



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# 4 groepen dekkingsgebaseerd testen

Better know & use  
one technique  
of each group

than

all techniques  
of only one group

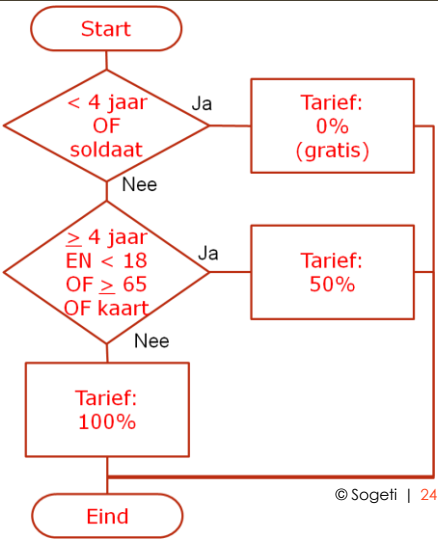


Coverage based	
1. Process	e.g. Proces Cycle Test
2. Conditions	e.g. Elementary Comparison Test of Decision table
3. Data	e.g. Data Combination Test
4. Appearance	e.g. Syntactic or using user profile



# Voorbeeld Testontwerptechniek

## Grenswaardenanalyse



Combineer de beide approaches altijd !!


Experience based

Coverage based

↑

combineer

↑

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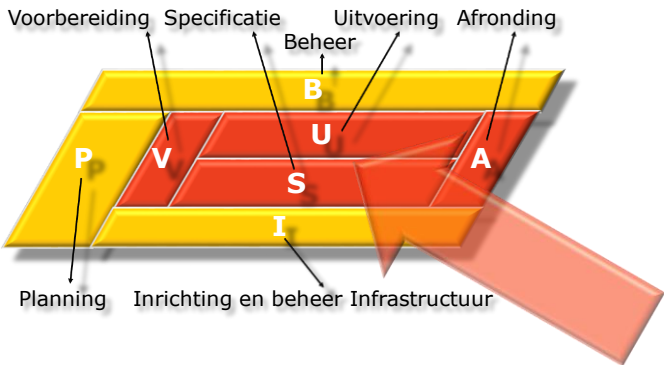
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# Exploration is a feedback loop

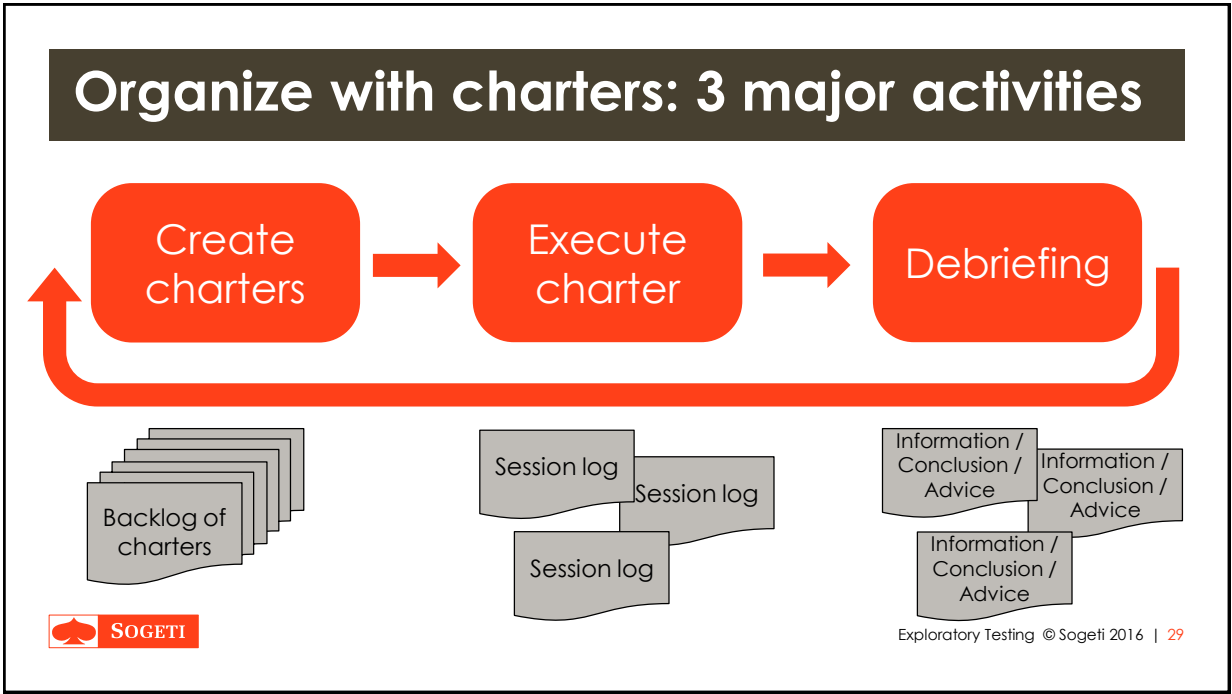


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# TMap NEXT activiteiten bij Exploratory Testing



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# Exploratory testing charter voorbeeld

Charter

Test ideas: e.g. testing tours, test data, etc.

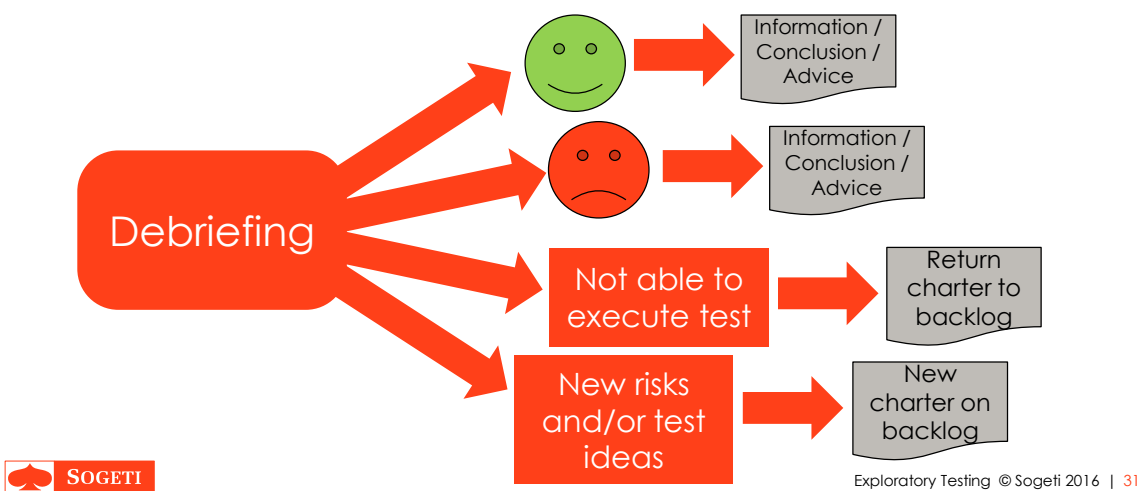
Log

De-briefing

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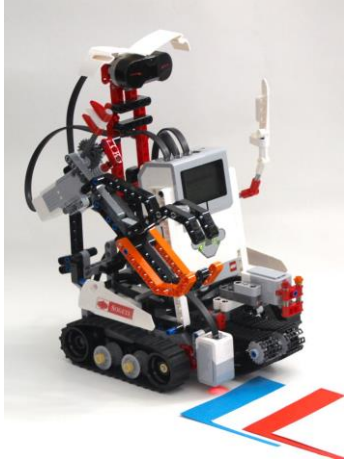
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# Possible debriefing outcomes





## Introducing the color-recognizing robot



ROB3 is a robot with a color-scanner.

Every run it scans 3 times.

The first scan determines the face of the robot:

black → loving eyes

white → winking eyes

The second and third scan determine its reaction:

blue is dissappointing

green is better

yellow is much better

red is the ROB3's favorite



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## User-stories for color-recognizing robot

- As a robot I scan 3 colors during the session so that I can show how that makes me feel
- As a robot I will wink when I see white so that everyone knows I'm not that serious
- As a robot I will show loving eyes when I see black so that everyone knows I'm into gothic
- As a robot I will cheer when I see red two times so that everyone can see I'm happy
- As a robot I will shout "boo" when I see blue twice so that everyone knows I don't like blue
- As a robot I stop moving when I hit something so that I don't hurt any human (as per Asimov's law)
- As a robot I'll drive backwards when I'm ready scanning AND the remote control is operated so that I will return to my starting position and be ready for the next try.



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## Workshop: maak een charter

**Maak een charter voor het testen van ROB3**

**Debriefing:**

- Wat voor test ideeën heb je opgenomen?
- Waarom?
- Waar liep je tegenaan?

**10 minuten**

**4 Groepen**



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## Test de robot

**Uitvoeren van de test (per groep)**

**Elke groep krijgt 3 minuten om te testen**

**Na 3 minuten 1 minuut debriefing**

**Elke volgende groep maakt gebruik van wat ze van de vorige groep geleerd hebben.**



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## Nuttige websites

**www.tmap.net**  
**building blocks**  
**workbook**  
**www.istqb.org**  
**glossary**  
**syllabus**



## 100.000 views op www.tmap.net sinds 2014

1.	Netherlands	36.661 (36,69%)
2.	United States	10.026 (10,03%)
3.	India	6.734 (6,74%)
4.	Germany	4.922 (4,93%)
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9.	Denmark	2.131 (2,13%)
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