

# CopenhagenContext

Dealing with Context Change  
Huib Schoots



# Acknowledgements

Thanks to:

- Ruud Cox for help, input and inspiration
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- Obviously James Bach and Michael Bolton for sharing their knowledge about Rapid Software Testing and the Heuristic Test Strategy Model
- The context-driven community for their never-ending support, inspiration, discussion and feedback

Some slides taken from Rapid Software Testing and are used with permission. Rapid Software Testing was developed by James Bach and Michael Bolton. Also see: [http://www.satisfice.com/info\\_rst.shtml](http://www.satisfice.com/info_rst.shtml)

# What is testing? And why do we test?

Evaluate a product by learning about it through exploration and experimentation (RST)

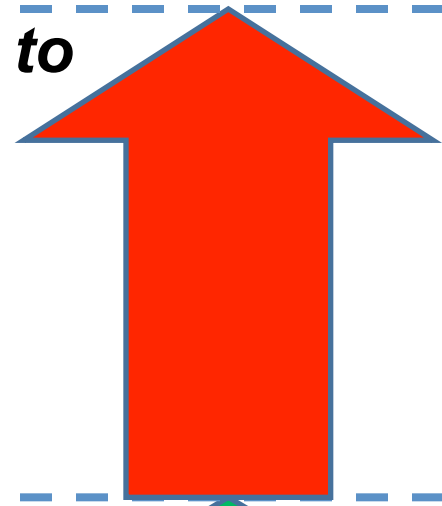
Testing gathers information about a product with the intention to inform a decision (Jerry Weinberg)

Testers see things for what they are. They make informed decisions about quality possible, because they think critically about software (RST)

Testers light the way (RST)

# Testers Light the Way: *The Risk Gap*

*What we need to know*

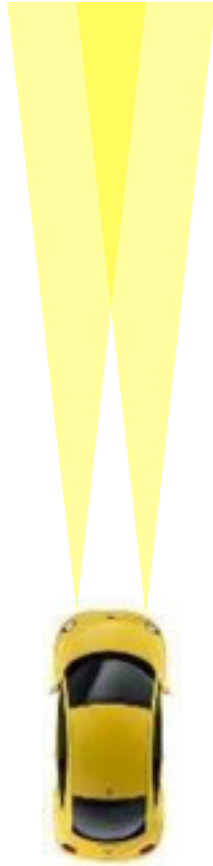


*What we know*



The purpose of testing is to close the risk gap. The bigger this is, the harder it is to test.

Our knowledge of the status of the product



# Exercise:

## What is Context?



1. Define context.
2. Discuss with your neighbour...

Any questions?

2 Minutes



# What is Context?

## context

/ˈkɒntɛkst/ 

*noun*

the circumstances that form the setting for an event, statement, or idea, and in terms of which it can be fully understood.

"the proposals need to be considered in the context of new European directives"

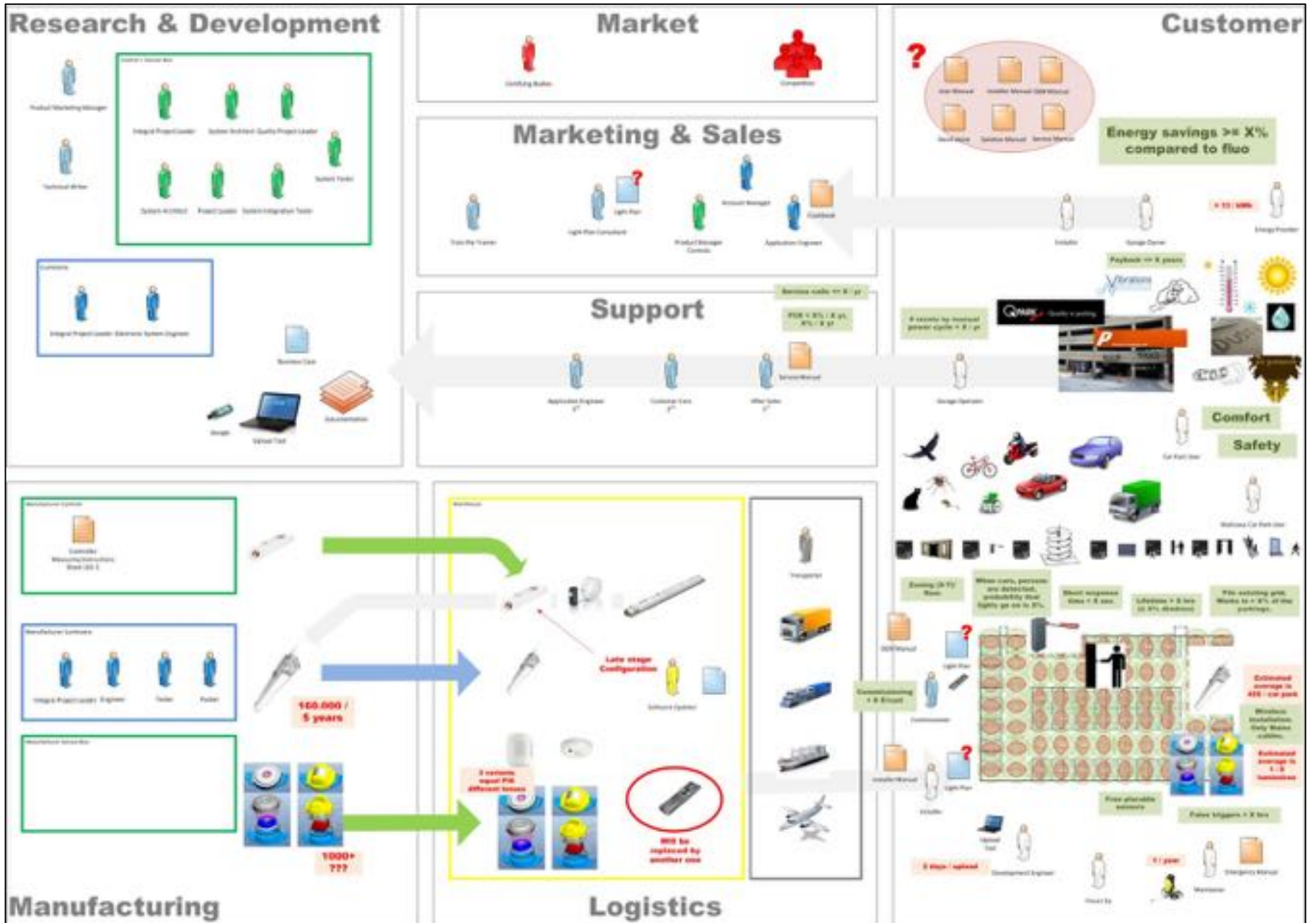
*synonyms:* circumstances, conditions, **surroundings**, factors, state of affairs;  
situation, environment, milieu, setting, **background**, **backdrop**, scene;  
climate, atmosphere, **ambience**, mood, feel

# Context?

*What is Context-Driven Testing?*

*“People evaluating a product by learning about it through experimentation in a manner organized and motivated by a systematic consideration of all the factors that significantly influence the problems and solutions that lie within the scope of their mission.”*

-- James Bach, Let's Test in 2013: “How do I Know I am Context-Driven?”





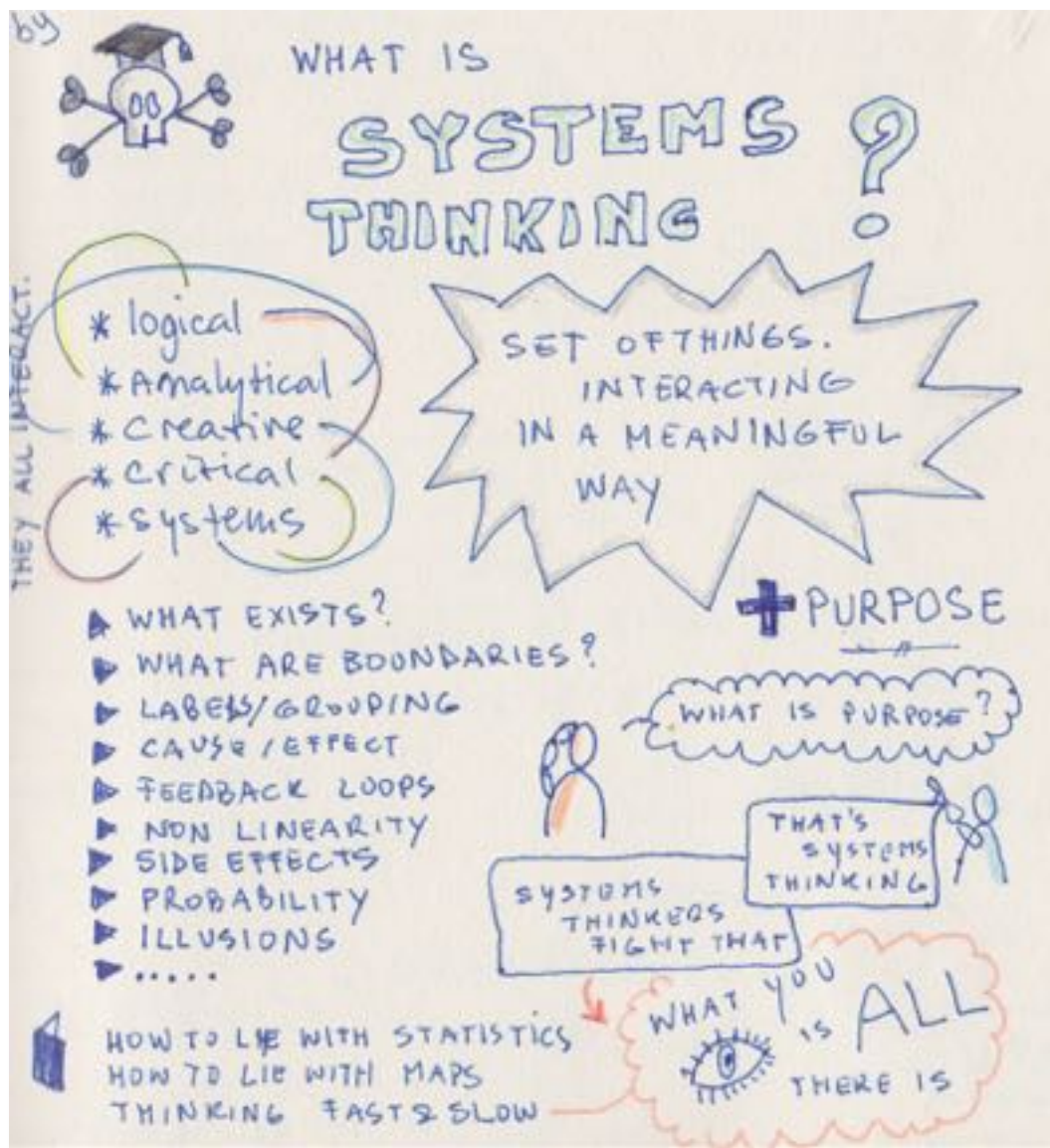
# What are we looking for?

- Relationship with “the product”
  - Whole Product Life Cycle
  - All of them → **EVERYTHING!?**
- What matters? What is your mission?
- Potential risk & value
- Exploration and experimentation
  - What questions do you need to ask?
- What about the unknown unknowns?

# Why do we need this?

- To determine what you could test ....
  - Factors
  - Relations
  - Risks & Value
- The better you understand **the product's ecosystem**, the better you can test it ...

# Systems thinking



# WYSIATI



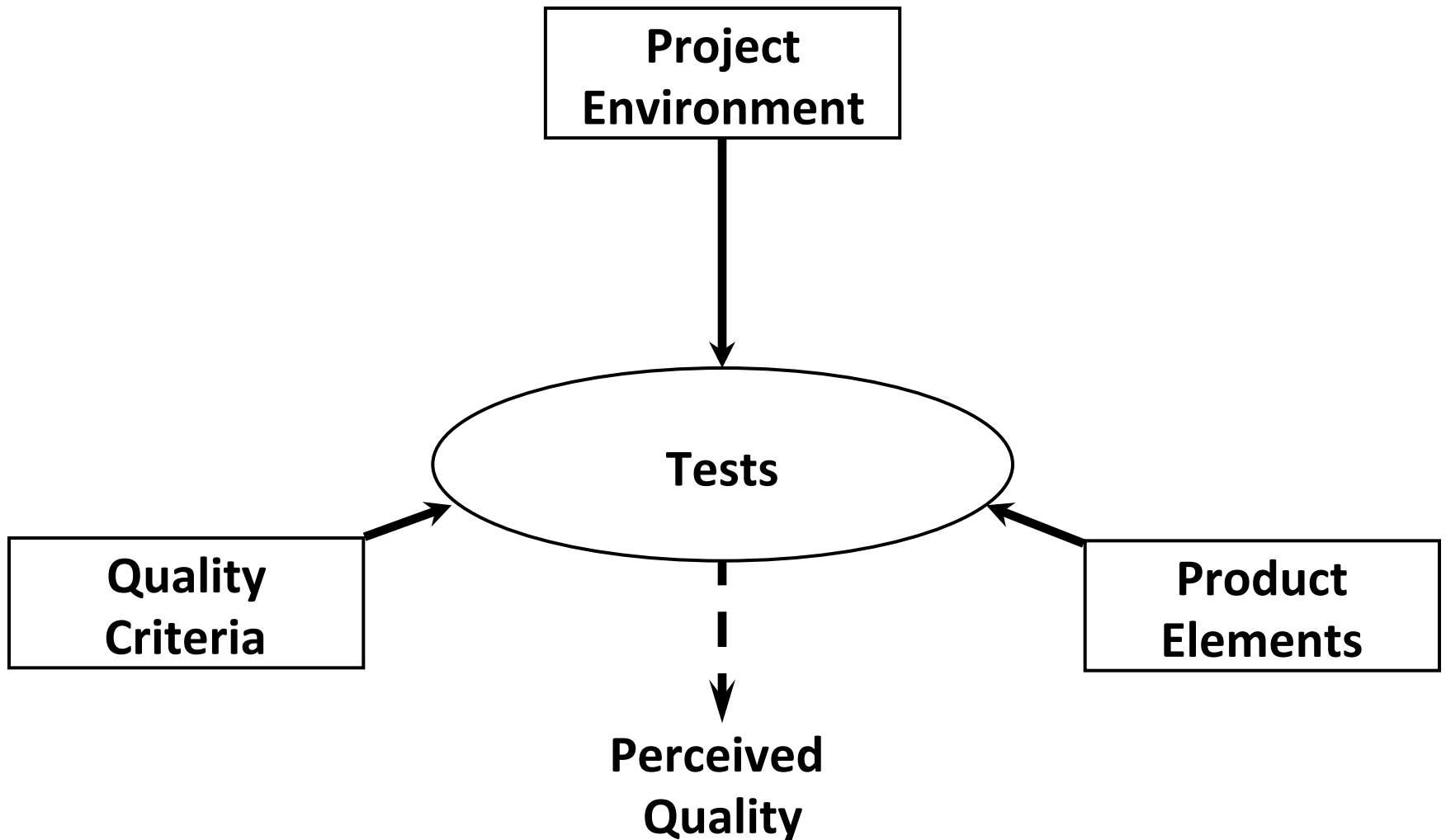
Source: <http://www.inc.com/daniel-kahneman/idea-lab-what-you-see-not-all-there-is.html>

# What questions do you need to ask?

A way you could start is using guide word heuristics!



# Heuristic Test Strategy Model



# Project Environment

## Ways to understand our context

# MIDTESTD

- Mission
  - *The set of things we must do in order to satisfy our clients.*
- Information
  - *Information about the product or project that is needed for testing.*
- Developer relations
  - *How you get along with the programmers.*
- Test team
  - *Anyone who will perform or support testing.*
- Equipment & tools
  - *Hardware, software, or documents required to administer testing.*
- Schedule
  - *The sequence, duration, and synchronization of project events.*
- Test Items
  - *The product to be tested.*
- Deliverables
  - *The observable products of the test project.*

# One Way to Model the product: Product Elements

## SFDIPOT – “San Francisco Depot”

- Structure
- Function
- Data
- Interfaces
- Platform
- Operations
- Time



# Quality Criteria

Identifying value and threats to it...

## CRUCSS CPID

- Capability
- Reliability
- Usability
- Charisma
- Security
- Scalability
- Compatibility
- Performance
- Installability
- Development

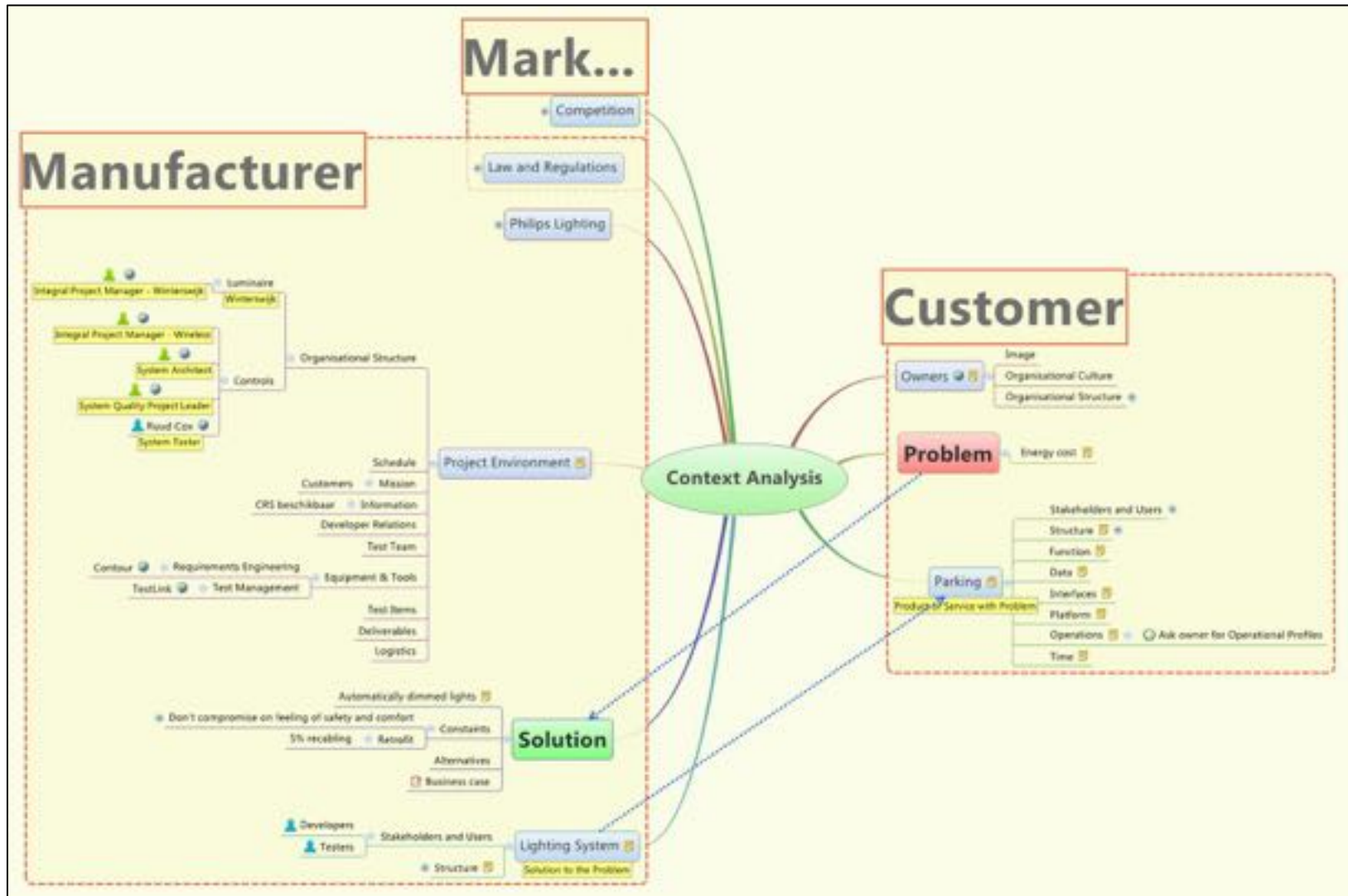
*Many test approaches focus on Capability (functionality) and underemphasize the other criteria*

# Oracles

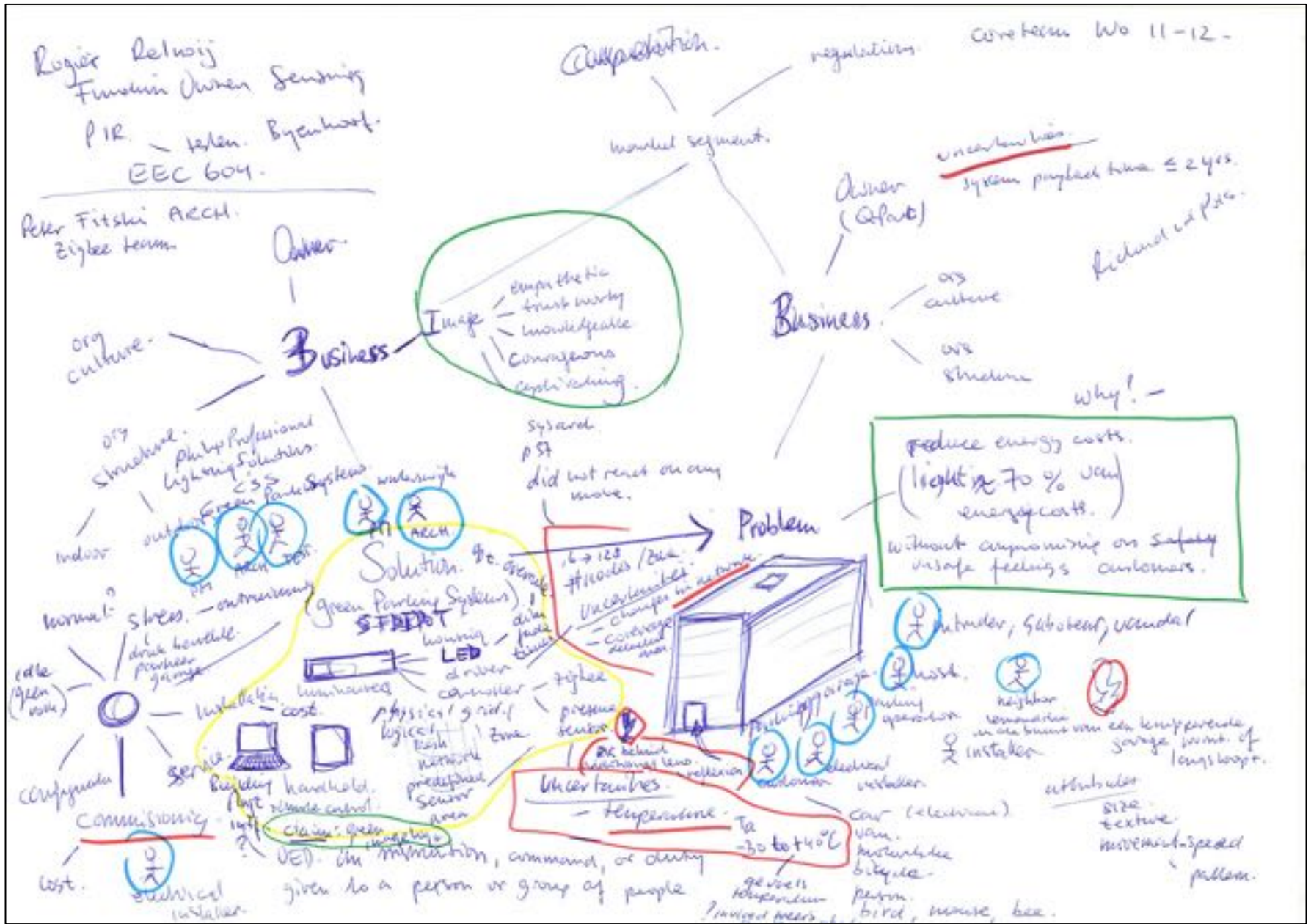
An oracle is a means by which you recognize a problem when it happens in testing.

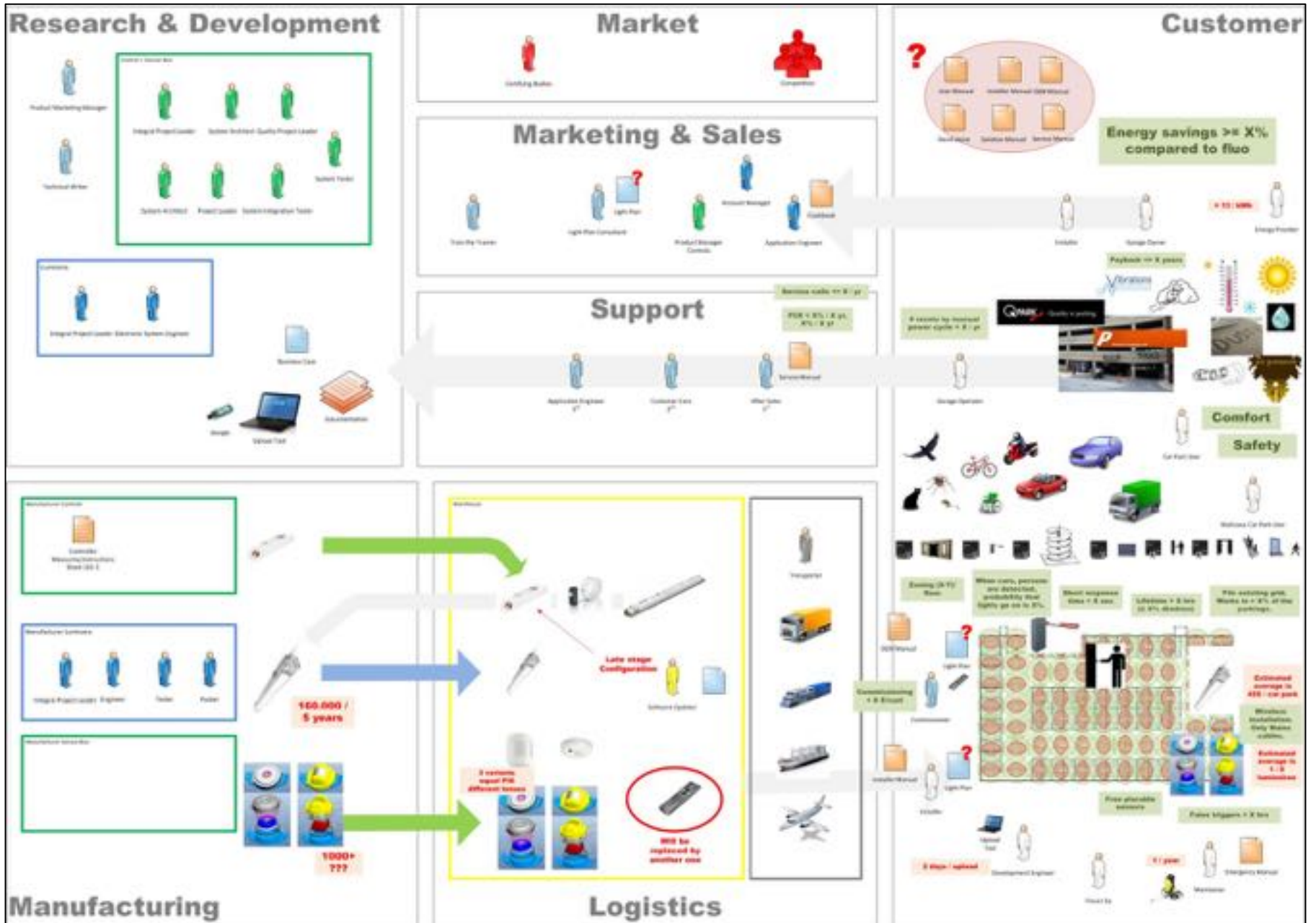
## FEW HICCUPPS

- Familiarity
- Explainability
- World
- History
- Image
- Comparable Products
- Claims
- Users' Desires
- Product
- Purpose
- Statutes



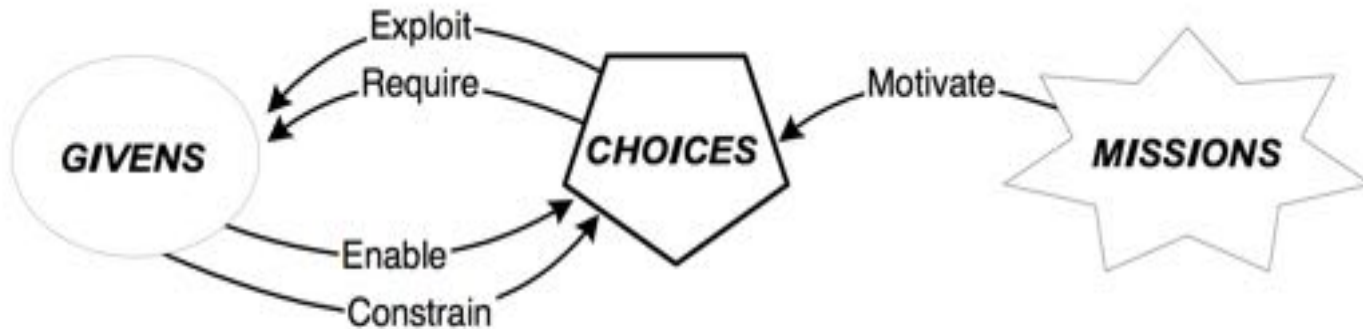
## Context analysis: 1<sup>st</sup> iteration





# So?

## How Context Influences the Test Plan



1. Understand who is involved in the project and how they matter.
2. Understand and negotiate the GIVENS so that you understand the constraints on your work, understand the resources available, and can test effectively.
3. Negotiate and understand the MISSIONS of testing in your project.
4. Make CHOICES about how to test that exploit the GIVENS and allow you to achieve your MISSIONS.
5. Monitor the status of the project and continue to adjust the plan as needed to maintain congruence among GIVENS, CHOICES, and MISSIONS.

# Surprise Surprise

You will find that factors you haven't anticipated may play a unexpected role while you are testing your product...



# Dealing with Context Change

- Understanding your context enables you to anticipate on future changes!
- Rapid response on changes
- Overview
  - Learning fast
  - New insights
  - Status
  - Impact
  - ...





**QUESTIONS,  
YOU HAVE,  
HMM?**



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# References

- Some of these slides are taken from: Rapid Software Testing – James Bach & Michael Bolton  
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- Product Ecology – Ruud Cox  
<http://ruudcox.wordpress.com/2013/10/25/an-example-of-a-product-ecology-for-testers/>
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- Heuristic Test Strategy Model – Designed by James Bach  
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<http://www.satisfice.com/tools/satisfice-cm.pdf>
- Testability heuristics - James Bach  
<http://www.satisfice.com/tools/testable.pdf>
- DEWT3  
<http://dewt.wordpress.com/2013/04/24/dewt3-experience-reports/>
- Many links to great resources on my website  
<http://www.huibschoots.nl/links>

# Exercise:

## Product Ecology



1. Make a product ecology of the room you are in.
2. Mission: is this room suitable for a conference?
3. Map context and relations!

Any questions?

*10 Minutes*



# Exercise:

## Context changes



1. Given the Product Ecology you made earlier.
2. What could happen that totally changes your approach?

Any questions?

*5 Minutes*

