

# Visualizing Testability

## An Experience Report

@mariakedemo  
maria.kedemo@houseoftest.se



You know that feeling...

**...when someone decides they  
need your test equipment more  
than you do!**





**...when you are never informed  
or asked about changes in the  
product.**

Rhys Asplundh

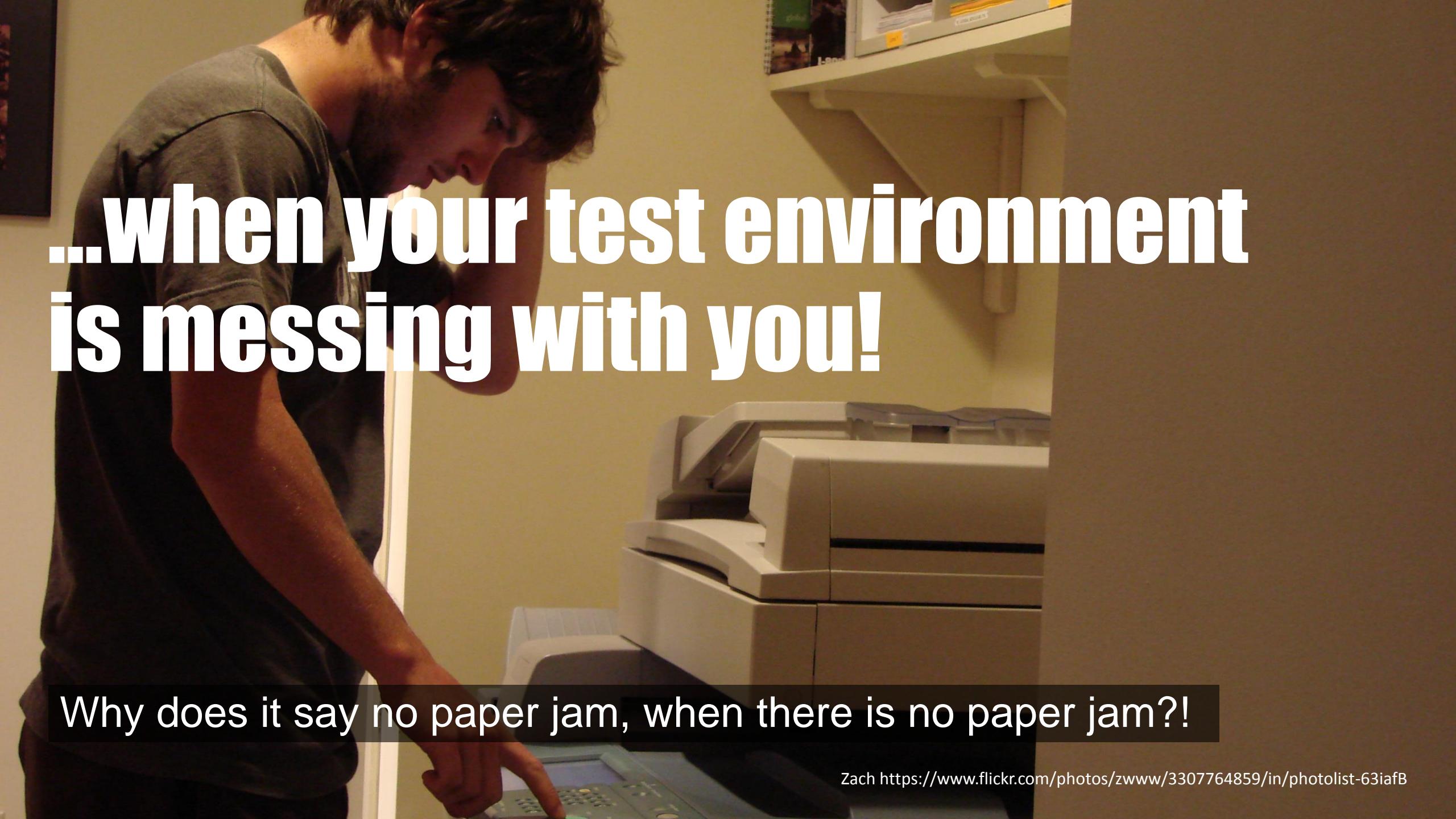
© <https://www.flickr.com/photos/rhysasplundh/5197446090/in/photolist-8VhgDu>

**...when the test data you spent  
hours creating, is deleted.**



...when the build takes  
forever...



A photograph of a man with short brown hair, wearing a dark t-shirt, leaning over a white printer. He is looking intently at the printer's control panel, which displays the error message "NO PAPER JAM". The printer is positioned against a light-colored wall. In the background, there is a shelf with various items, including a small framed picture and some papers.

**...when your test environment  
is messing with you!**

Why does it say no paper jam, when there is no paper jam?!

**...when people keep  
interrupting your test session.**



Share some insights and  
increase our awareness of  
Testability

1) Why Testability is  
important...

2) How visualizing  
Testability can help...



# EPISODE 1: SYMPTOMS OF LOW TESTABILITY (2013)

Scot Nelson <https://www.flickr.com/photos/scotnelson/15802141303/>

Low testability can be  
very costly

Low testability can be  
mentally exhausting



## EPISODE 2: Discovering Testability (2013)

Testability:  
How *easily* a product can be  
tested

# What affects Testability?

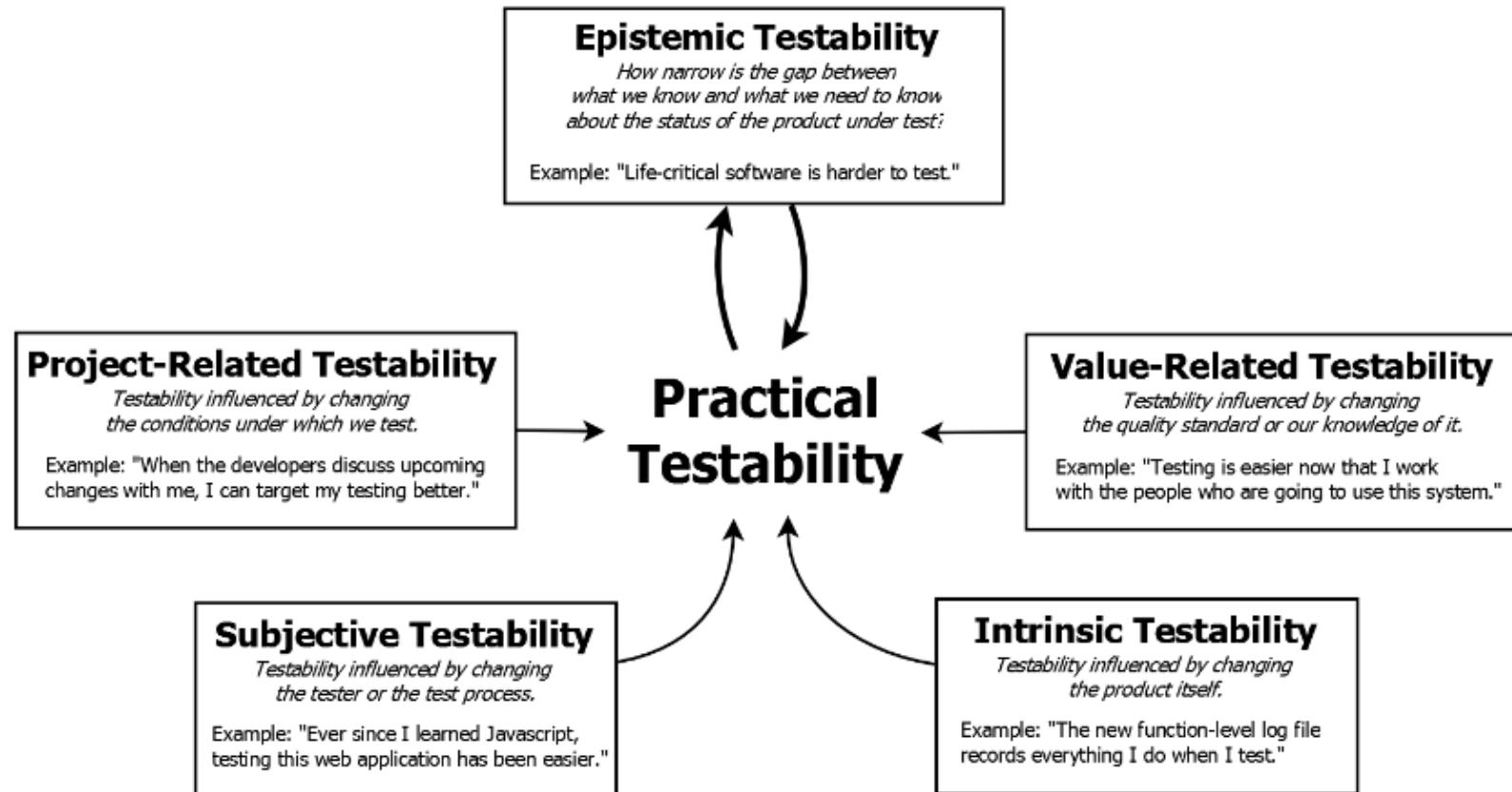


Ravas51

<https://www.flickr.com/photos/38007185@N00/8466324955/>

Cropped original pictured

# Heuristics of Testability



# Heuristics of Testability

## Project-Related Testability

*Testability influenced by changing  
the conditions under which we test.*

Example: "When the developers discuss upcoming changes with me, I can target my testing better."



# Heuristics of Testability

## **Subjective Testability**

*Testability influenced by changing  
the tester or the test process.*

Example: "Ever since I learned Javascript,  
testing this web application has been easier."

# Heuristics of Testability

## Intrinsic Testability

*Testability influenced by changing  
the product itself.*

Example: "The new function-level log file  
records everything I do when I test."

# Heuristics of Testability

## Value-Related Testability

*Testability influenced by changing  
the quality standard or our knowledge of it.*



Example: "Testing is easier now that I work  
with the people who are going to use this system."

# Heuristics of Testability

## **Epistemic Testability**

*How narrow is the gap between  
what we know and what we need to know  
about the status of the product under test?*

Example: "Life-critical software is harder to test."



## EPISODE 2: DISCOVERING TESTABILITY



# Dynamics

# EPISODE 3: PUTTING TESTABILITY ON THE ROAD MAP(2014)



# The 3 questions

1. “What can I do?”
2. “What can I ask of others?”
3. “What are the things that are beyond my ability to affect?”

A high degree of testability **helps everyone** involved in software development.

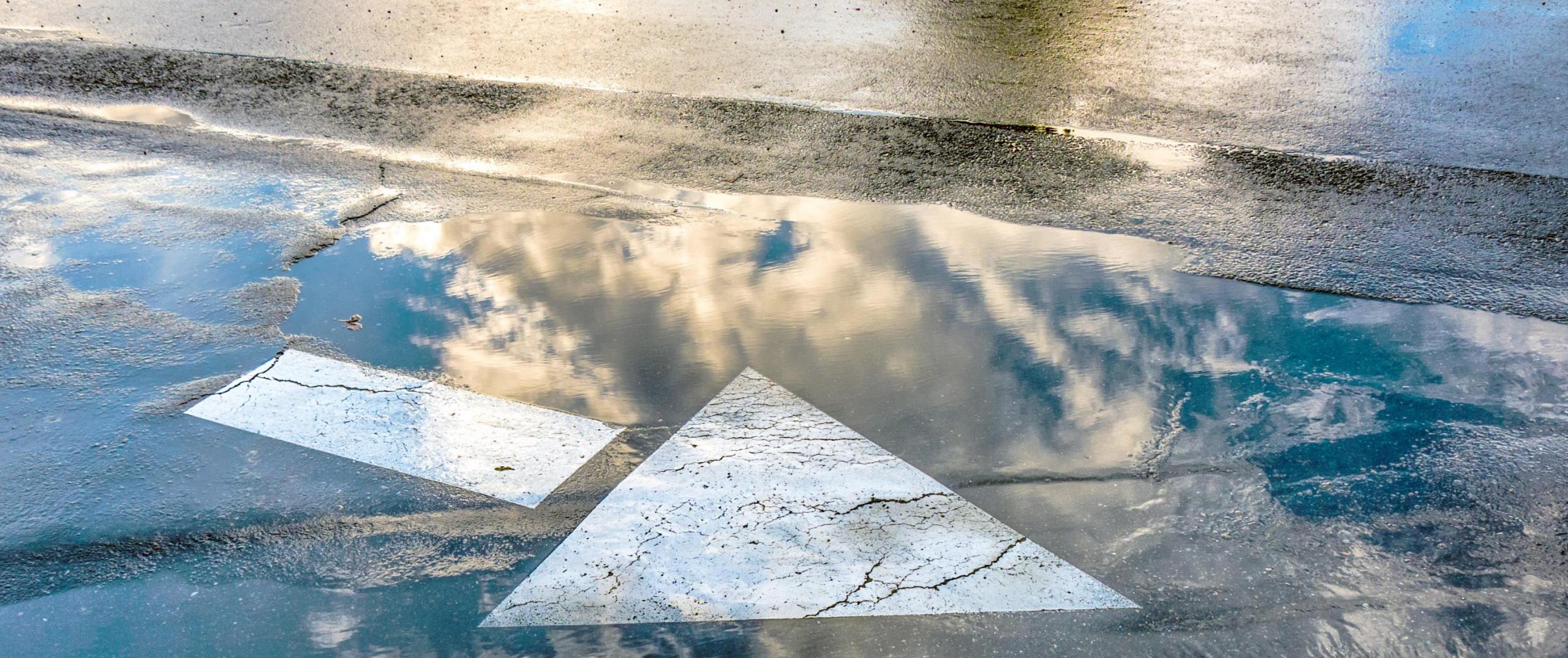
A wide-angle photograph of a calm lake. In the background, there's a shoreline with several houses and small boats docked at a wooden pier. The water is very still, creating clear reflections of the surrounding trees and buildings. The foreground is dominated by the blue surface of the lake.

# EPISODE 4: REFLECTIONS

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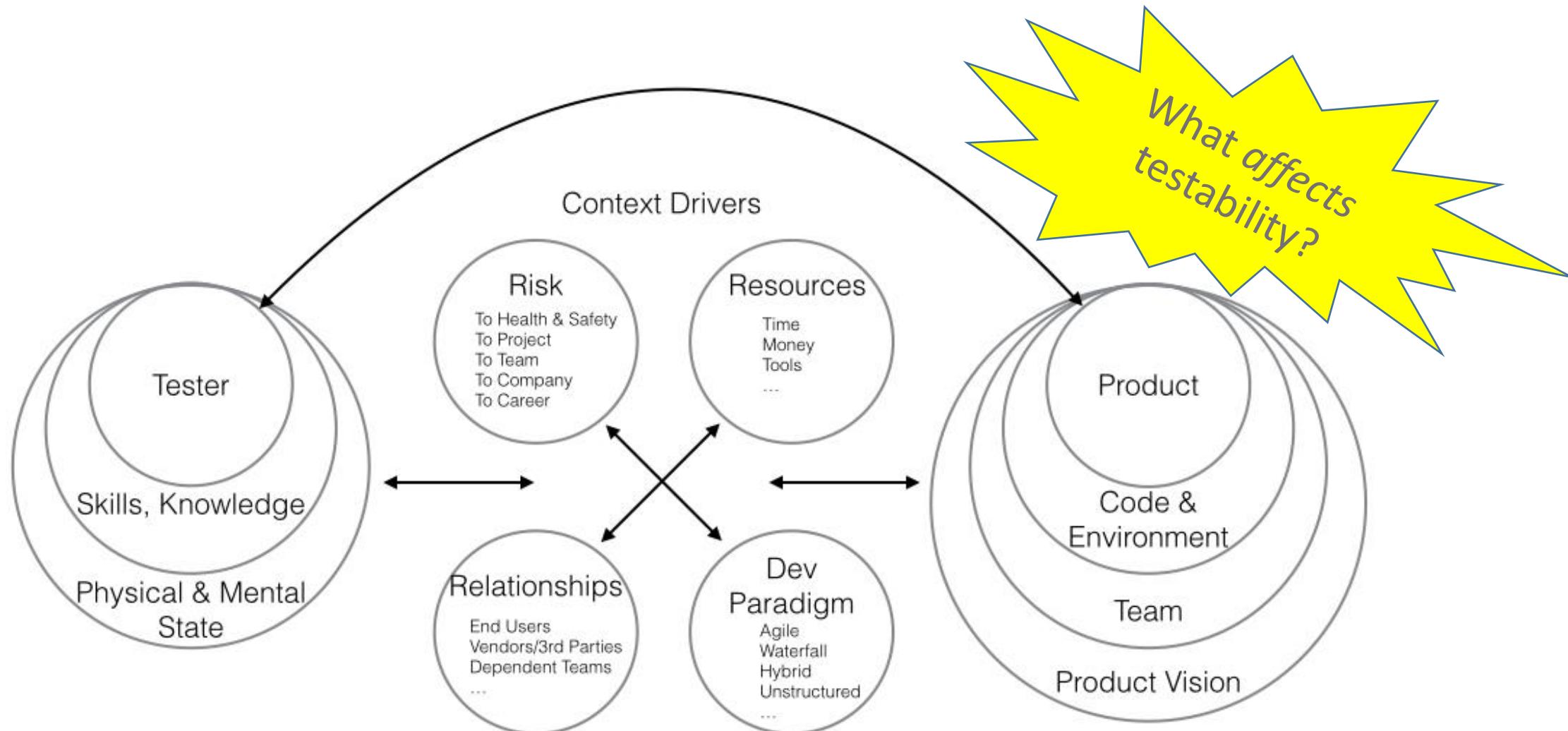
Did I succeed in  
bringing awareness to  
testability?

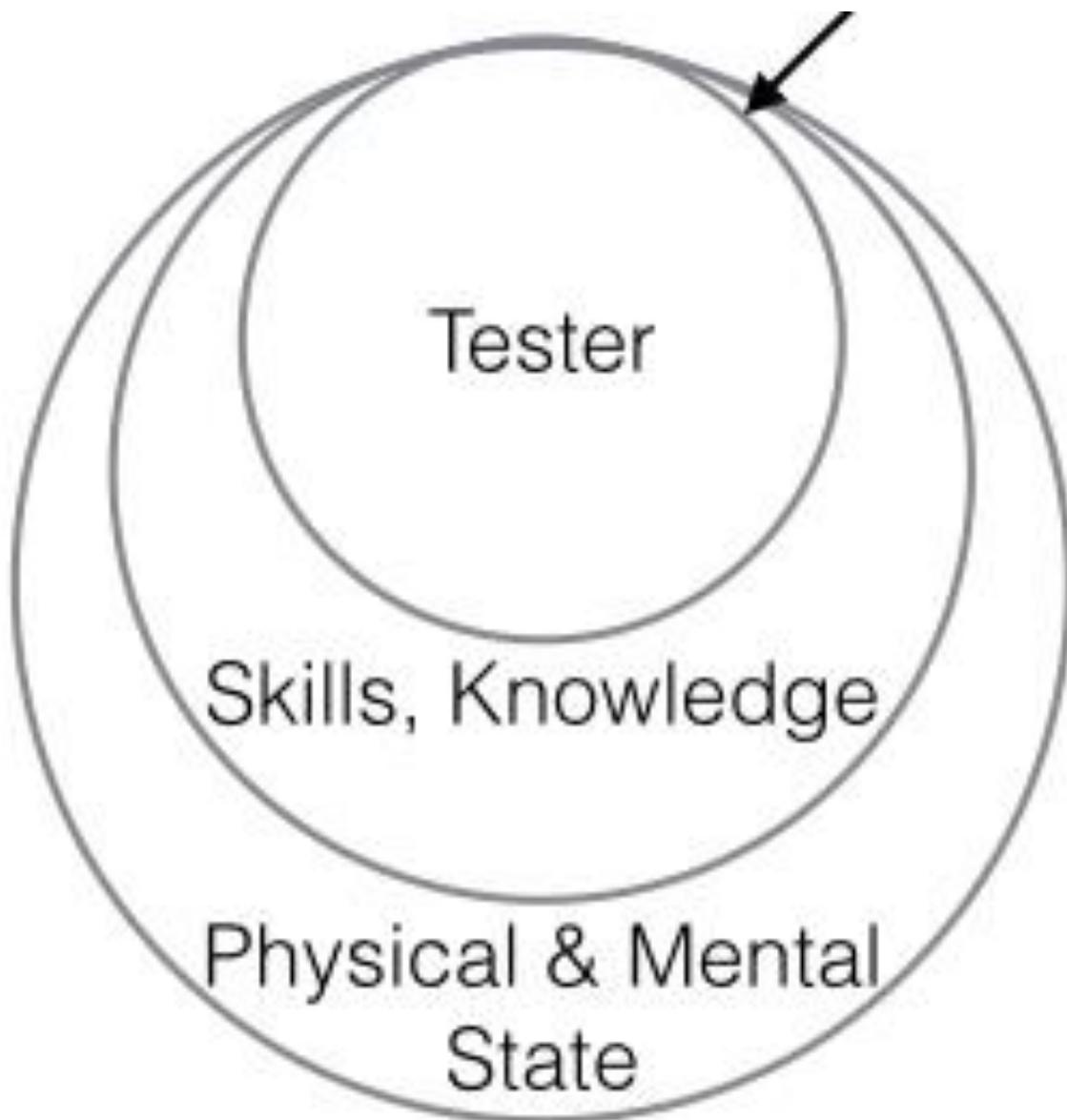
Did bringing awareness increase  
testability?

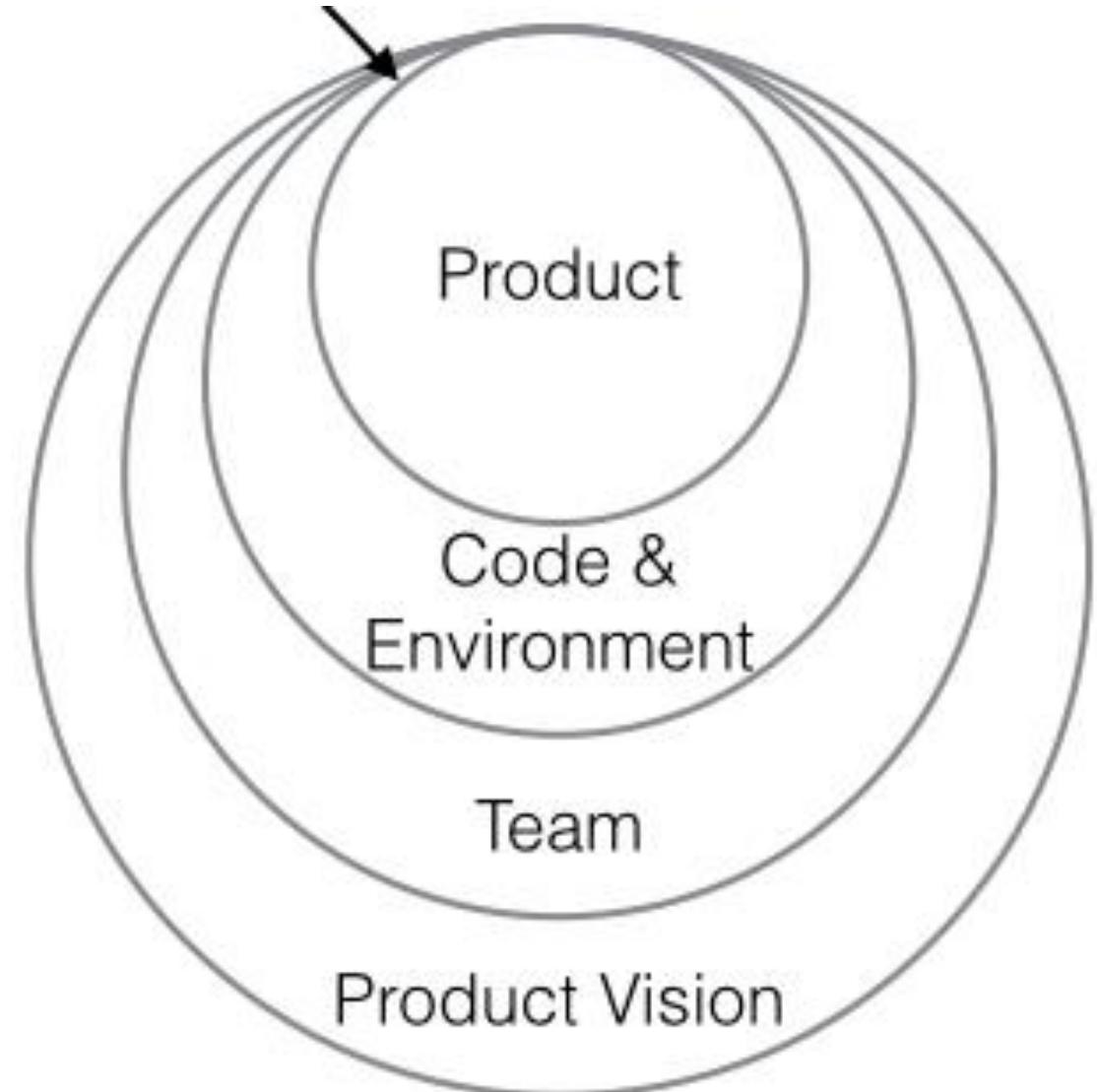


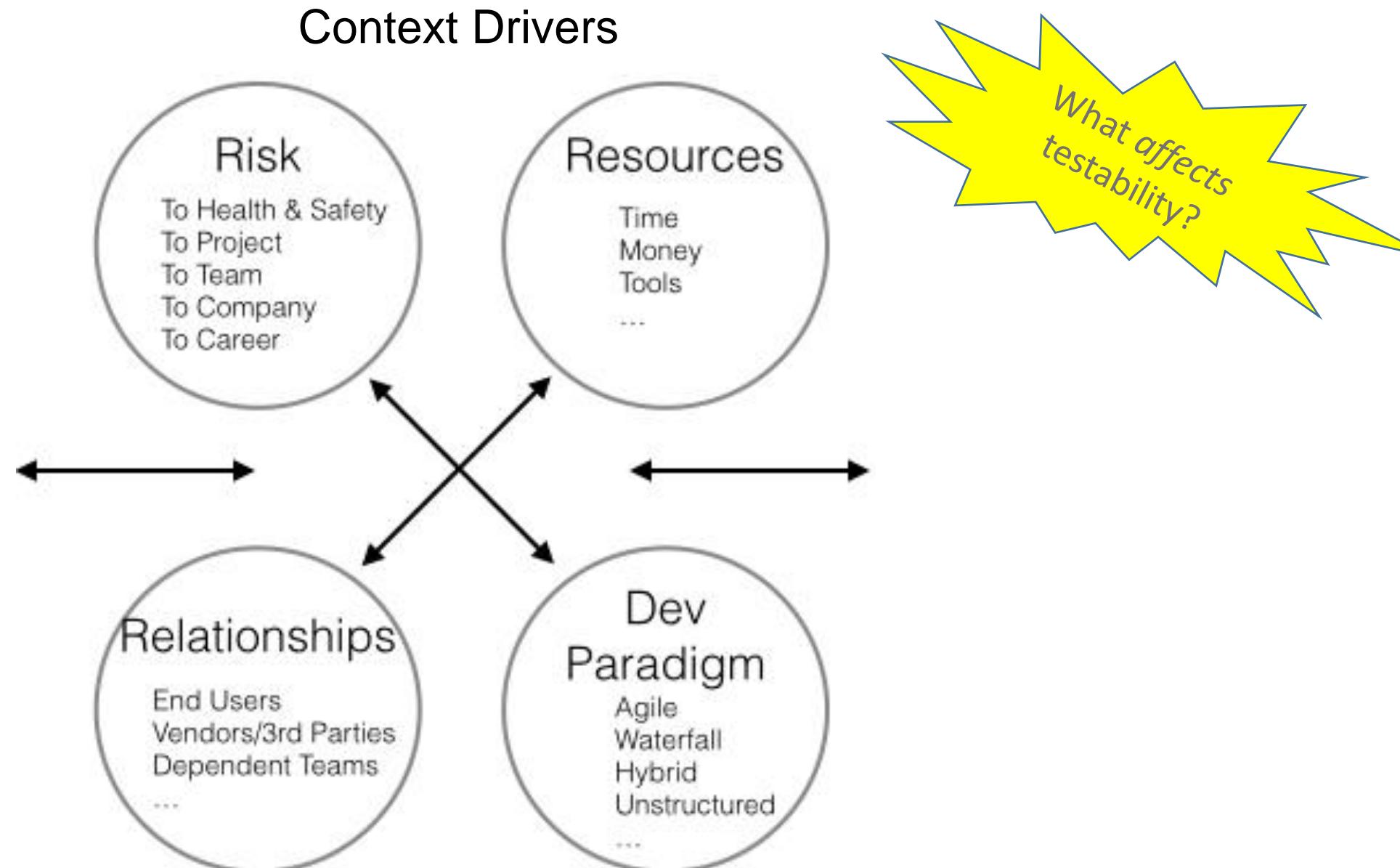
## EPISODE 5: TOWARDS DIMENSIONS OF TESTABILITY (2015)

# Dimensions of Testability









# WRAP UP TIME



# Testability

- 1) affects everyone in software development.
- 2) affects cost.

# Low Testability

is costly and mentally  
exhausting

Three models visualizing what **affects** testability

- Heuristics of Testability
- 3 questions
- Dimensions of Testability

Ask yourself:

What can I do to  
increase testability?

#testability #cast2015 @mariakedemo

# Questions?

@mariakedemo

maria.kedemo@houseoftest.se



**HOUSE OF TEST**  
CONSULTING & OUTSOURCING