



AGILETD
Open Air



BUZZWORDS & SKILLS

IMPORTANCE OF BASIC TESTER SKILLS:
THE REVIVAL OF TEST DESIGN TECHNIQUES?

HI, MY NAME IS HUIB

- 📌 HAPPILY MARRIED TO KARIN, 2 BONUS DAUGHTERS: LEONIE & MEREL
- 📌 I LIVE IN DEN BOSCH IN THE NETHERLANDS
- 📌 25+ YEARS EXPERIENCE IN IT
- 📌 EXPERIENCE AS DEVELOPER, TESTER, CONSULTANT, MANAGER, TRAINER & COACH
- 📌 EXPERT & INNOVATOR @ QUALITY ACCELERATORS & @ DE AGILE TESTERS
- 📌 RAPID SOFTWARE TESTING INSTRUCTOR
- 📌 FASCINATED BY MINDSET, THINKING, BEHAVIOUR & COLLABORATION
- 📌 LEGO & GAMES FREAK, BEER BREWER, SINGER IN A ROCK BAND



I AM
VERY
WORRIED





MY WORRIES

- ♟ LEARNING IS NOT PART OF WOW
- ♟ STATE OF TESTING INDUSTRY
 - PROCESS & STANDARD FOCUSED
 - LOT OF OLD STUFF
 - NO INNOVATION
- ♟ AUTOMATION ADDICTION
- ♟ TESTERS LACKING BASIC SKILLS
- ♟ TESTERS DON'T KNOW HOW TO TALK ABOUT TESTING
- ♟ TEAM/MANAGEMENT DOES NOT RECOGNIZE GOOD TESTING

BUZZWORDS



BDD

Exploratory Testing

DevOps

Codeless automation

Shift Left

AI

Testing as a Service

Cloud based

Model-based testing

Build in Quality


And many
many more...

HOW TO TEST SYSTEMATICALLY?



HOW SHOULD WE
TEST THIS??

HOW TESTING OFTEN WORKS

1. READ/DISCUSS THE USER STORY
- 2.
3. MAGIC HAPPENS
- 4.
5. WRITE TEST CASES
6. EXECUTE TEST CASES
7. ALL TEST CASES PASSED
8. STORY = DONE!

MOST TESTING IS
DRIVEN BY **IMPLICIT**
QUESTIONS ABOUT RISK

NOTHING HAPPENS
HERE SINCE WE
DO NOT REPORT

ELEMENTS OF EXCELLENT TESTING

1. MODEL THE TEST SPACE (PRODUCT & CONTEXT)
2. IDENTIFY RISKS
3. CONSIDER COVERAGE
4. CONSIDER ORACLES
5. DETERMINE TEST PROCEDURES
6. TEST THE SYSTEM
7. EVALUATE THE TEST RESULTS
8. REPORT TEST RESULTS

**MOST TESTING IS
DRIVEN BY QUESTIONS
ABOUT RISK**

**SO IT HELPS TO
RELATE TEST RESULTS
BACK TO RISK**

SO HOW DO YOU DESIGN YOUR TESTS WELL??



TESTING AND QUALITY

📢 **TESTING** INFORMS DECISIONS ABOUT QUALITY & RISK

📢 **QUALITY** IS VALUE TO PEOPLE WHO MATTER

QUALITY IS **NOT**: CONFORMANCE TO REQUIREMENTS

QUALITY IS **NOT**: THE BEST PRODUCT POSSIBLE

QUALITY PRODUCTS SOLVE THE PROBLEM AND ARE “GOOD ENOUGH”



WHAT DO YOU NEED TO DO GOOD TEST DESIGN?

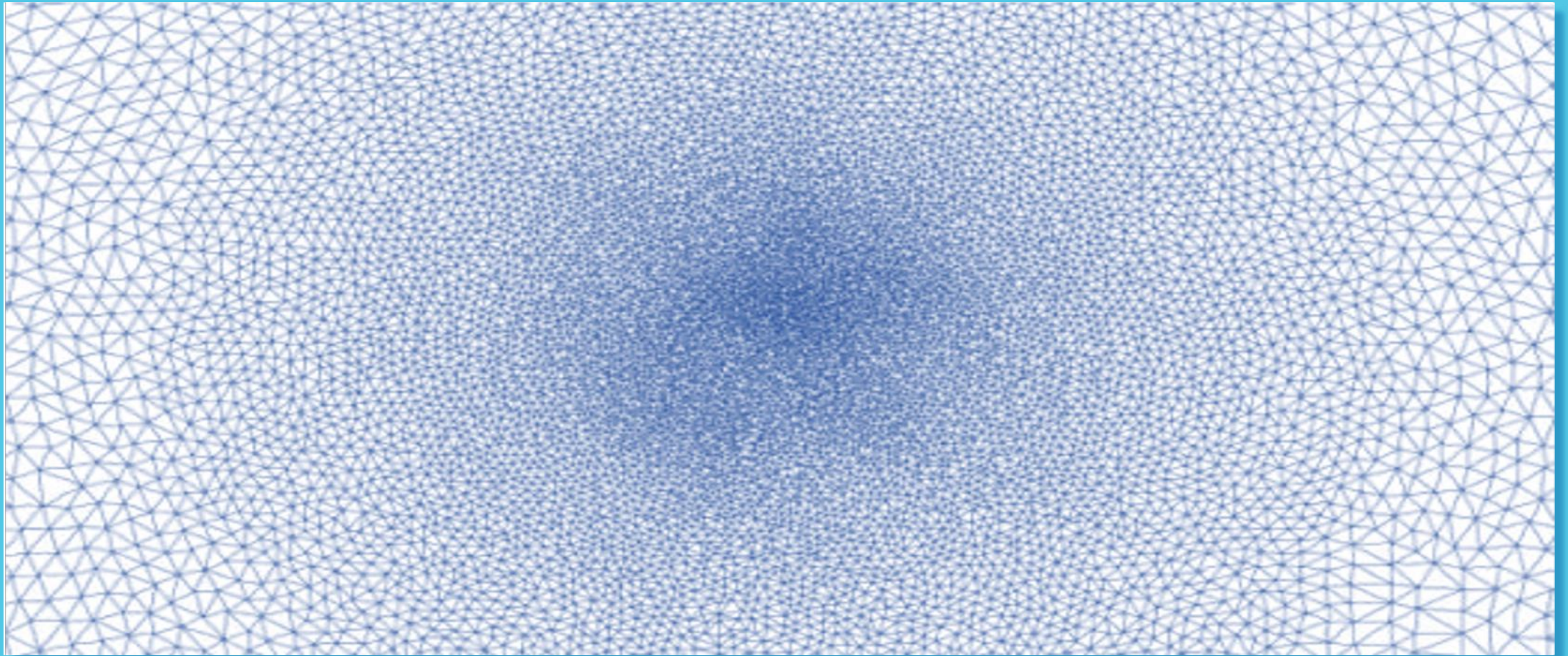
- 📢 LEARNING SKILLS
- 📢 THINKING SKILLS
- 📢 TESTING SKILLS
- 📢 TECHNICAL SKILLS
- 📢 DOMAIN SKILLS
- 📢 SOFT SKILLS



SOFTWARE DEVELOPMENT = R&D!!



SOFTWARE IS COMPLEX



PEOPLE ARE COMPLEX (AND IRRATIONAL)



DEALING WITH THIS VUCA WORLD

VOLATILE → PRODUCT VISION

UNCERTAIN → TRY TO UNDERSTAND THE CONTEXT

COMPLEX → LEARNING, INNOVATION AND PROVIDING CLARITY

AMBIGUOUS → AGILITY TO INCORPORATE ADAPTABILITY

RISK



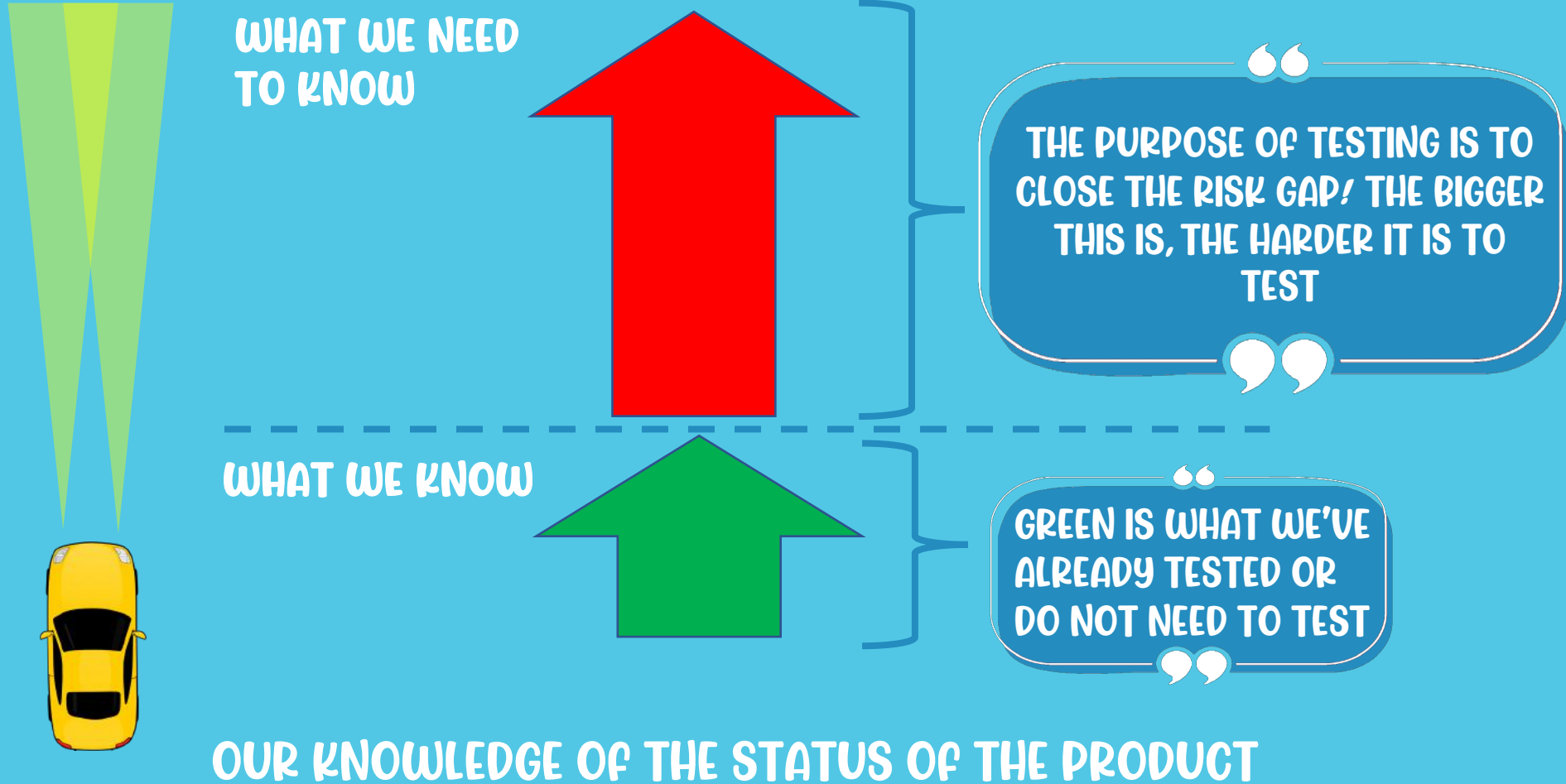
DURING SOFTWARE DEVELOPMENT WE HAVE TO DEAL WITH **UNKNOWN UNKNOWN**S

- 📢 **QUALITY IS PERCEPTION**
- 📢 **CUSTOMERS AND PRODUCT OWNERS DON'T KNOW OR CAN'T IMAGINE WHAT THEY WANT**
- 📢 **DEVELOPMENT TEAM CAN'T IMAGE WHAT CUSTOMERS WILL ACTUALLY DO**
- 📢 **RESEARCH: BUILDING NEW INSIGHTS & EVOLUTIONARY DESIGN, TESTING SUPPORTS THE TEAM LEARNING!**
- 📢 **DEALING WITH COMPLEXITY, CONFUSION, CHANGE, NEW INSIGHTS & HALF ANSWERS**

WE HAVE TO **LEARN** CONTINUOUSLY & DEAL WITH **RISKS**



THE PRODUCT RISK KNOWLEDGE GAP



TESTING IS LEARNING!

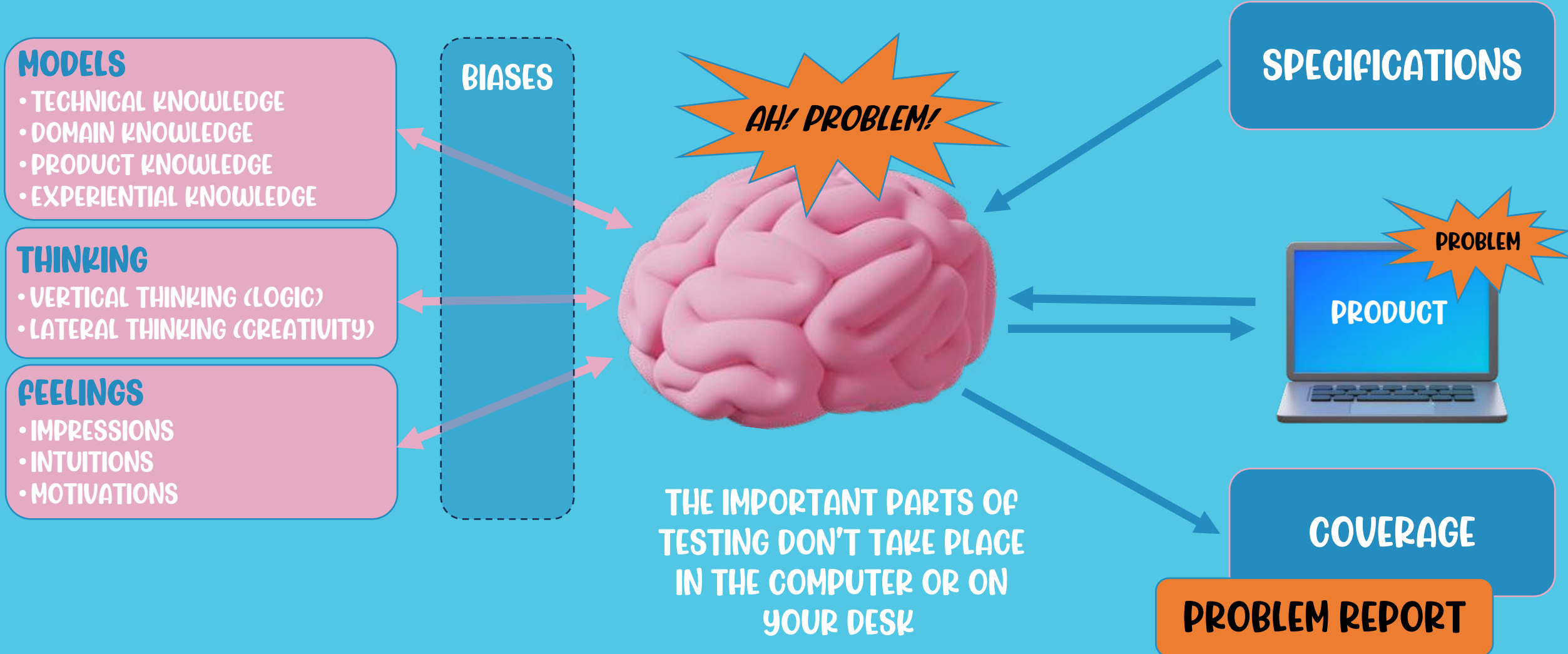
📢 TESTING IS SO MUCH MORE THAN CREATING & EXECUTING TEST CASES

📢 BUT WHAT DO I HAVE TO LEARN?

📢 THE REQUIREMENTS MIGHT BE A GOOD START...
BUT HOW DO YOU FULLY UNDERSTAND THE PRODUCT?



TESTING IS IN YOUR HEAD

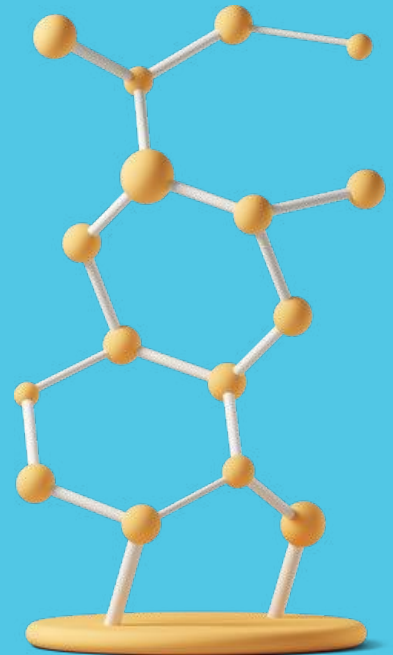


THE BETTER YOUR MODEL, THE BETTER YOUR TESTING

- 📢 CREATE A MENTAL MODEL*
- 📢 QUESTION YOUR MODEL
- 📢 DESIGN ACTIONS TO INVESTIGATE
- 📢 APPLY CRITICAL THINKING ON YOUR MODEL & ACTIONS
- 📢 WORK WITH THE INTENTION TO FIND PROBLEMS

* SINCE WE DEAL WITH COMPLEX PRODUCTS, YOU MIGHT WANT TO VISUALISE YOUR MENTAL MODELS

BAD MODEL = BAD TESTING!!



MAKING CHOICES ABOUT TESTING

- 📌 RISKS TO DRIVE CHOICES
- 📌 TEST STRATEGY (WHAT TO TEST AND HOW TO TEST)
TO BE ABLE TO DISCUSS YOUR CHOICES ABOUT COVERAGE
- 📌 INVOLVE YOUR PRODUCT OWNER IN MAKING THE CHOICES



COLLABORATING & COMMUNICATION

📢 WORK WITH YOUR TEAM

- 📢 DIVERSITY OF THINKING
- 📢 CONTENT OF UNIT TESTS IS IMPORTANT INFORMATION
- 📢 CREATING FEEDBACK LOOPS TO IMPROVE YOUR THINKING

📢 CREATE INSIGHT & OVERVIEW

- 📢 HELP ANSWERING THE QUESTION:
ARE THERE PROBLEMS THAT THREATEN THE ON-TIME, SUCCESSFUL
COMPLETION OF THE PROJECT/PRODUCT??
- 📢 HELP TEAM & PRODUCT OWNER TO MAKE INFORMED DECISIONS

TO BE ABLE TO DO THIS, YOU NEED TO BE ABLE TO EXPLAIN &
JUSTIFY YOUR TESTING



TALK BETTER TO THINK BETTER

REPLACE

- 1 VERIFY THAT
- 1 VALIDATE
- 1 CONFIRM THAT
- 1 TEST CASES
- 1 PASS VS FAIL
- 1 SHOW THAT IT WORKS
- 1 EXPECTED RESULT/ACTUAL RESULT
- 1 AUTOMATED TESTING
- 1 WE DON'T HAVE GOOD REQUIREMENTS DOCUMENTS
- 1 ENVIRONMENT DOWN: I GUESS WE'RE JUST HOSED
- 1 COUNTING TEST CASES
- 1 WE DON'T HAVE ENOUGH TIME TO TEST
- 1 WE HAVE TO

WITH

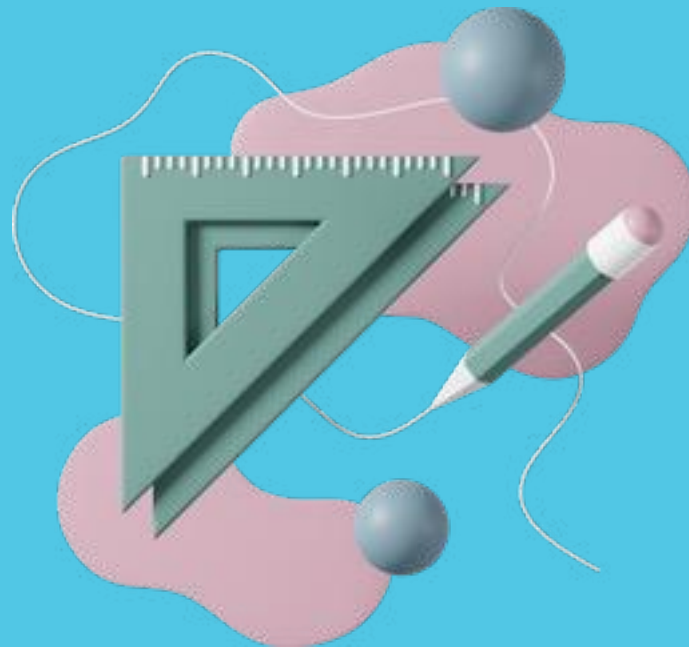
- 1 CHALLENGE THE BELIEF THAT
- 1 INVESTIGATE
- 1 FIND PROBLEMS WITH
- 1 TEST IDEAS / TEST FACTORS
- 1 IS THERE A PROBLEM HERE?
- 1 DISCOVER WHERE IT DOESN'T WORK
- 1 ACTUAL RESULT/ORACLE
- 1 PROGRAMMED CHECKING
- 1 LET'S TEST THIS FIND OUT WHAT IT DOES & DOCUMENT THAT
- 1 ARE YOU OKAY WITH THIS SITUATION, DEAR CLIENT?
- 1 DESCRIBING COVERAGE
- 1 HOW CAN WE ADD TESTABILITY TO PRODUCT PROJECT
- 1 WE *CHOOSE* TO

SUMMARY OF IMPORTANT SKILLS

- 📌 LEARNING
- 📌 MODELLING
- 📌 ANALYZING & QUESTIONING
- 📌 CRITICAL & CREATIVE THINKING
- 📌 CREATING INSIGHT & OVERVIEW
- 📌 RISK ANALYSIS
- 📌 TEST STRATEGY (DELIBERATE COVERAGE CHOICES)
- 📌 TALKING ABOUT TESTING & EVOLVING TEST STRATEGY
- 📌 COLLABORATION & COMMUNICATION
- 📌 MINDSET: CURIOUS, PROBLEM SOLVER, SERVICE PROVIDER



**SO WHAT ABOUT THOSE
TEST DESIGN TECHNIQUES
YOU MENTIONED?**



THESE ARE SKILLS YOU NEED TO DESIGN TESTS...

- 📌 LEARNING
- 📌 MODELLING
- 📌 ANALYZING & QUESTIONING
- 📌 CRITICAL & CREATIVE THINKING
- 📌 CREATING INSIGHT & OVERVIEW
- 📌 RISK ANALYSIS
- 📌 TEST STRATEGY (DELIBERATE COVERAGE CHOICES)
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THE GENERAL TEST TECHNIQUES: “WAYS TO TEST...”

- 📢 FUNCTION TESTING
- 📢 DOMAIN TESTING
- 📢 STRESS TESTING
- 📢 FLOW TESTING
- 📢 SCENARIO TESTING
- 📢 CLAIMS TESTING
- 📢 USER TESTING
- 📢 RISK TESTING
- 📢 AUTOMATIC CHECKING



HOW MUCH IS ENOUGH? DIVERSE HALF-MEASURES!

- 📢 EVERY TECHNIQUE FINDS DIFFERENT TYPES OF BUGS
- 📢 WE CAN'T DO ANY TECHNIQUE PERFECTLY
- 📢 WE CAN'T DO ALL CONCEIVABLE TECHNIQUES

USE “DIVERSE HALF-MEASURES”— LOTS OF DIFFERENT
POINTS OF VIEW APPROACHES TECHNIQUES EVEN
IF NO ONE STRATEGY IS PERFORMED COMPLETELY

SO HOW DO I LEARN THESE SKILLS?

📢 DELIBERATE PRACTICE

📢 CONTINUOUS LEARNING



“FORMAL” EDUCATION

- 1 RAPID SOFTWARE TESTING
- 1 RAPID TESTING APPLIED
- 1 STUFF BY PEOPLE LIKE ROB SABOURIN, FIONA CHARLES, JAMES LYNDSEY AND MANY OTHERS
- 1 EXPLORATORY TESTING / SBTM
- 1 BBST
- 1 MINISTRY OF TESTING CLASSES
- 1 AUTOMATION IN TESTING (RICHARD BRADSHAW & MARK WINTERINGHAM)
- 1 TEST AUTOMATION UNIVERSITY
- 1 WORKSHOPS AT CONFERENCES
- 1 CPAT / CSAT
- 1 ISTQB??
- 1 ...



SELF EDUCATION

📢 BOOKS

📢 BLOGS

📢 SOCIAL MEDIA/TWITTER

📢 PODCASTS

📢 VIDEOS

📢 ONLINE COURSES

📢 PAIRING

📢 EXPERIMENT

📢 WRITE

📢 COMMUNITIES

📢 MEETUPS

📢 CONFERENCES

📢 REFERENCES

📢 VIDEO MENTORING COACHING



WHERE TO START?

- 1 **FIRST:** KNOW WHAT TO LEARN AND FOCUS
- 1 **SECOND:** GET HELP AND PRACTICE!
- 1 **THIRD:** REFLECT OFTEN*

MAYBE WRITE A PERSONAL DEVELOPMENT PLAN?

- 1 WHO AM I
- 1 WHAT ARE MY SKILLS
- 1 WHAT DO I WANT
- 1 WHAT DO I NEED
- 1 HOW DO I GET THERE



* **THE ART OF REFLECTION:** <https://www.huibschoots.nl/wordpress/?p=2824>

I LEARNED A LOT FROM:

- 1 OBSERVING OTHERS
- 1 OBSERVING MYSELF
- 1 EXPLAINING, PRESENTING, TEACHING & COACHING
- 1 PAIRING
- 1 WRITING MY BLOG
- 1 KEEPING A JOURNAL
- 1 ALWAYS HAVING A NOTEBOOK WITH ME
- 1 DISCUSSING & DEBATING TESTING
- 1 TRYING NEW STUFF (EXPERIMENT)
- 1 MY COACHES AND MENTORS
- 1 REFLECT OFTEN





Thank
you!

QUESTIONS?
REMARKS?
FEEDBACK?
STORIES?

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- 📧 www.deagiletesters.nl

**EVERYTHING I DO COMES WITH LIFETIME TECHNICAL SUPPORT
SO CONTACT ME IF YOU HAVE QUESTIONS OR NEED HELP
EVEN IN TEN YEARS OR LATER...**



THANK YOU



SLIDES:

- 📢 **SOME OF THE SLIDES ARE TAKEN FROM RAPID SOFTWARE TESTING:**
<https://www.rapid-software-testing.com>

PICTURES:

- 📢 **MEGAPHONE** - <https://www.vecteezy.com/free-vector/megaphone>
- 📢 **WORRIED** - <https://www.pexels.com/photo/man-in-blue-and-brown-plaid-dress-shirt-touching-his-hair-897817/>
- 📢 **ANGRY** - <https://www.pexels.com/photo/close-up-photo-of-an-upset-man-7927244/>
- 📢 **BUSINESSMAN, BUSINESSWOMAN, R&D, LEARNING, BRAIN, LAPTOP, MODEL, BOY, GIRL, YOUNG WOMAN, YOUNG MAN** - <https://icons8.com/illustrations/author/zD2oqC8lLBBA>
- 📢 **DESIGN** - <https://icons8.com/illustrations/author/CkHJmwURlxnt>
- 📢 **EMOTIONS** - <https://www.pexels.com/photo/collage-photo-of-woman-3812743/>
- 📢 **COLLABORATION & THINKING** - ALL PICS FROM www.pexels.com
- 📢 **RISK** - <https://icons8.com/illustrations/author/lZpGtGw5182N>
- 📢 **THANK YOU** - <https://icons8.com/illustrations/author/ODexzOcCgAMh>

MORE INFO & REFERENCES



- 📌 **RAPID SOFTWARE TESTING:**
<https://www.rapid-software-testing.com>
- 📌 **HUIB SCHOOTS - CREATING A TEST STRATEGY:**
<https://www.huibschoolts.nl/wordpress/?p=2726>
- 📌 **HUIB SCHOOTS - TEST STRATEGY ASK ME ANYTHING:**
<https://www.ministryoftesting.com/dojo/lessons/testing-ask-me-anything-test-strategies-huib-schoolts>
- 📌 **CONSIDERATIONS WHEN TESTING A SOFTWARE APPLICATION IN A CONTEXT-DRIVEN WAY:**
<http://www.huibschoolts.nl/wordpress/?p=2781>
- 📌 **HUIB SCHOOTS & VINCENT WIJNEN – CREATING A CULTURE OF LEARNING:**
https://bit.ly/learningculture_atd2022
- 📌 **HUIB SCHOOTS & PAUL HOLLAND – AUTOMATION ADDICTION:**
<https://youtu.be/ZcwxyzvGWFc0>
- 📌 **HUIB SCHOOTS & ALEX SCHLADEBECK – LET’S STOP TALKING ABOUT TESTING LET’S START THINKING ABOUT VALUE:**
<http://www.huibschoolts.nl/wordpress/?p=2763>
- 📌 **ANNE-MARIE CHARRETT - QUALITY IS A TEAM RESPONSIBILITY:**
<https://youtu.be/mBC3ssLIJfQ>
- 📌 **COLLECTED USEFUL LINKS ON MY WEBSITE:**
<http://www.huibschoolts.nl/links>