

# Agile – the key to thriving in the 21<sup>st</sup> century world

Barbara Roberts



## Barbara Roberts - Agile Transformation Coach

- Specialises in agile in the complex corporate world  
& well known for her common-sense and pragmatic approach to agile
- Passionate about sharing her agile knowledge  
& regularly invited to speak at events around the world to share her experiences



Signatory of the Agile Agnostic Oath



Fellow of the Agile Business Consortium

- Previously Director of Agile Business Consortium for 20+ years
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- Certified Scrum Professional and Scrum Trainer
- Certified Professional Facilitator

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- Agile – how did we get here?
- Agile basic concepts
- Some agile misconceptions



# The 1960s – The rule of the machine

- Software engineers seen as “magicians” and very much in charge
  - Little or no formal process
  - Freedom to be innovative
    - “Just get the solution done”
  - Fun (if you worked in IT !)
- One fundamental mistake
  - Assumption that Software Engineering works just like all other styles of engineering
- This assumption worked in the early years while humans (users) were kept at arms length!!



# 1970s – Quality control through defined processes

- The “Waterfall” process defined by Winston Royce in **1970**
  - to manage development of large software systems
  - **designed for a static world**, where change is the exception (a “problem” to be avoided)
  - This basic waterfall mindset still constrains many businesses 50 years later
  - It is misinterpreted!

Page 2 of Royce paper

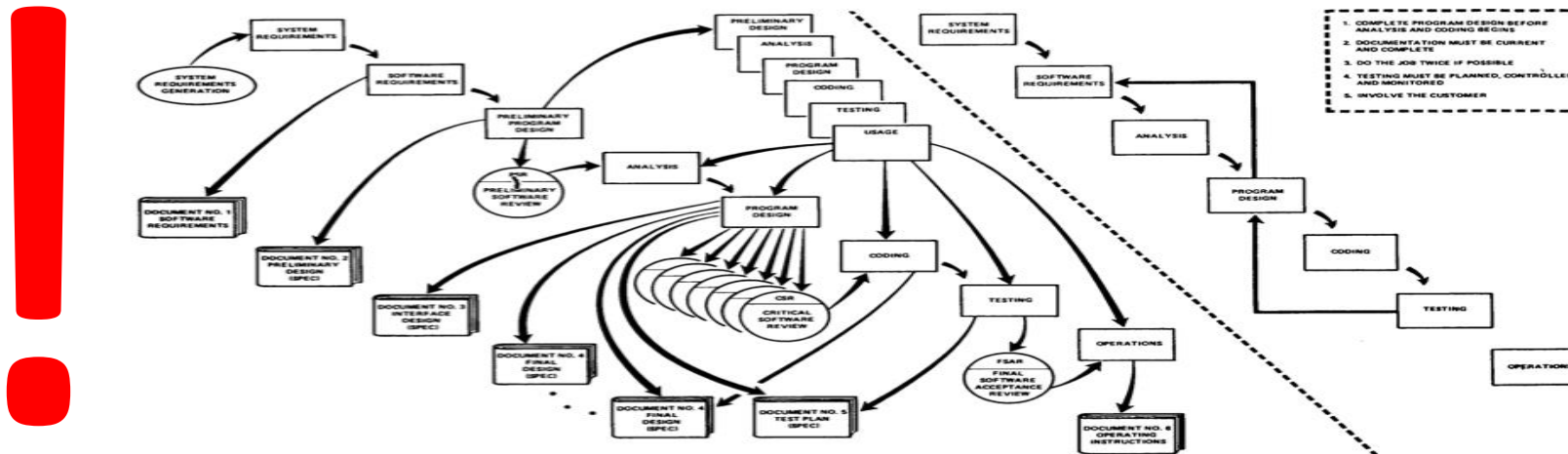


Figure 10. Summary

this concept, but the implementation described above is risky and invites failure. The 4 in Figure 4. The testing phase, which is a part of the development cycle is the

analyzed. These phenomena are not precisely analyzable. They are not the solutions to the standard partial



# An outcome of waterfall thinking



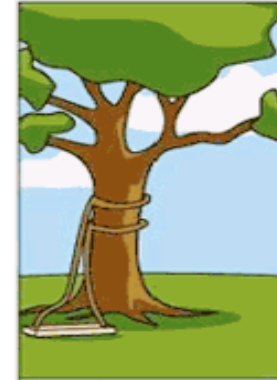
What the Customer had in mind



How the Customer described it



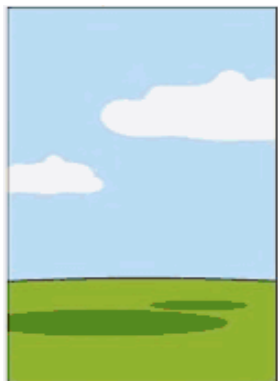
What ended up in the Requirements Specification



What got presented for User Acceptance



What ended up going into Production



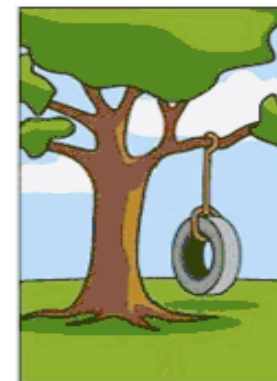
What got reflected in the Support Docs



What the Help Desk understood



What the Customer was billed for



What the *Business* really needed



Or maybe the 21<sup>st</sup> century option?

# Late 80s / Early 90s – a changing world

- Personal computers arrived on the scene in the 80s
- Developers now had the ability to create solutions quickly and easily
  - This style was called **Rapid Application Development (RAD)**
    - The ability to ask people what they wanted and then create this for them
      - ❖ Hugely satisfying and great fun
      - ❖ Often focused on the interesting parts (and skimped on the “boring bits”)
- By the mid 90s – dangerous times
  - “RAD Cowboys”
  - “Control” and “Quality” thrown away
  - Focus entirely on “Rapid” and “User Driven”
  - Uncontrolled spread of end-user solutions
  - Multiple copies of corporate data
  - Resulted in too many unscalable or unsupported solutions



# Mid 90s – Changing “Bad RAD” to “Good RAD”

- Many major UK organisations shared concerns about RAD
  - The risk that RAD problems would drive a return to full waterfall
- We recognised that good modern-style corporate solutions need 4 para
  - “Rapid” and “User driven” combined with “Control” and “Quality”
- We created the first of the proper “Good RAD” approaches
  - DSDM launched in UK in 1994
  - Built using a collaborative style, putting aside commercial competition
    - Complex corporate organisations such as British Airways, British Telecom, British Rail, Oracle, Sysdeco, Co-op Bank
  - Providing guidance based on our shared experiences of effective best practice
- Many other RAD-style approaches followed (mostly US based and guru-led)





- By 2001, it was clear RAD was not a good acronym
  - The 1<sup>st</sup> letter R (Rapid) suggests speed is the major (or only?) driver
  - Also leads to a frequent misconception that RAD can deliver everything in half the time!
- Launch of the Agile Manifesto
  - Leaders of the various RAD-style approaches got together (Snowbird, Utah)
    - Abandoned the word RAD
    - Introduced the term “Agile” – a much more meaningful word
      - ❖ Agile suggests “flexibility”, “the ability to bend”
      - ❖ Removes link to software implied by “Application”

# 2001 – The Manifesto for **Solution** Development

We are uncovering better ways of developing software  
by doing it and helping others do it.

**Solutions**

Through this work we have come to value:



**Individuals and Interactions** over Processes and Tools

**Working Solutions** over Comprehensive documentation

**Customer Collaboration** over Contract negotiation

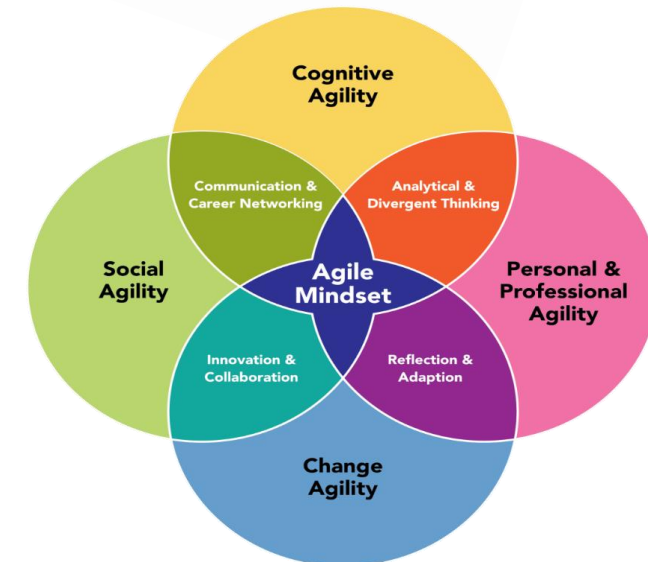
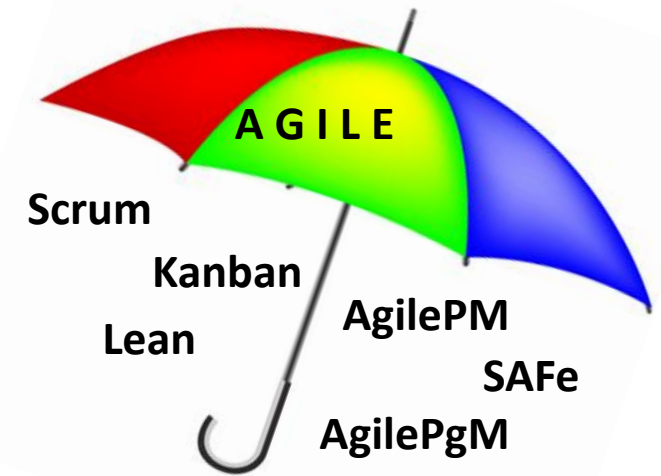
**Responding to Change** over Following a plan

That is, while there is value to the items on the right  
we value the items on the left more.

Kent Beck, Mike Beedle, Arie van Bennekum, Alistair Cockburn, Ward Cunningham, Martin Fowler  
James Grenning, Jim Highsmith, Andrew Hunt, Ron Jeffries, Jon Kern, Brian Marick  
Robert C. Martin, Steve Mellor, Ken Schwaber, Jeff Sutherland, Dave Thomas

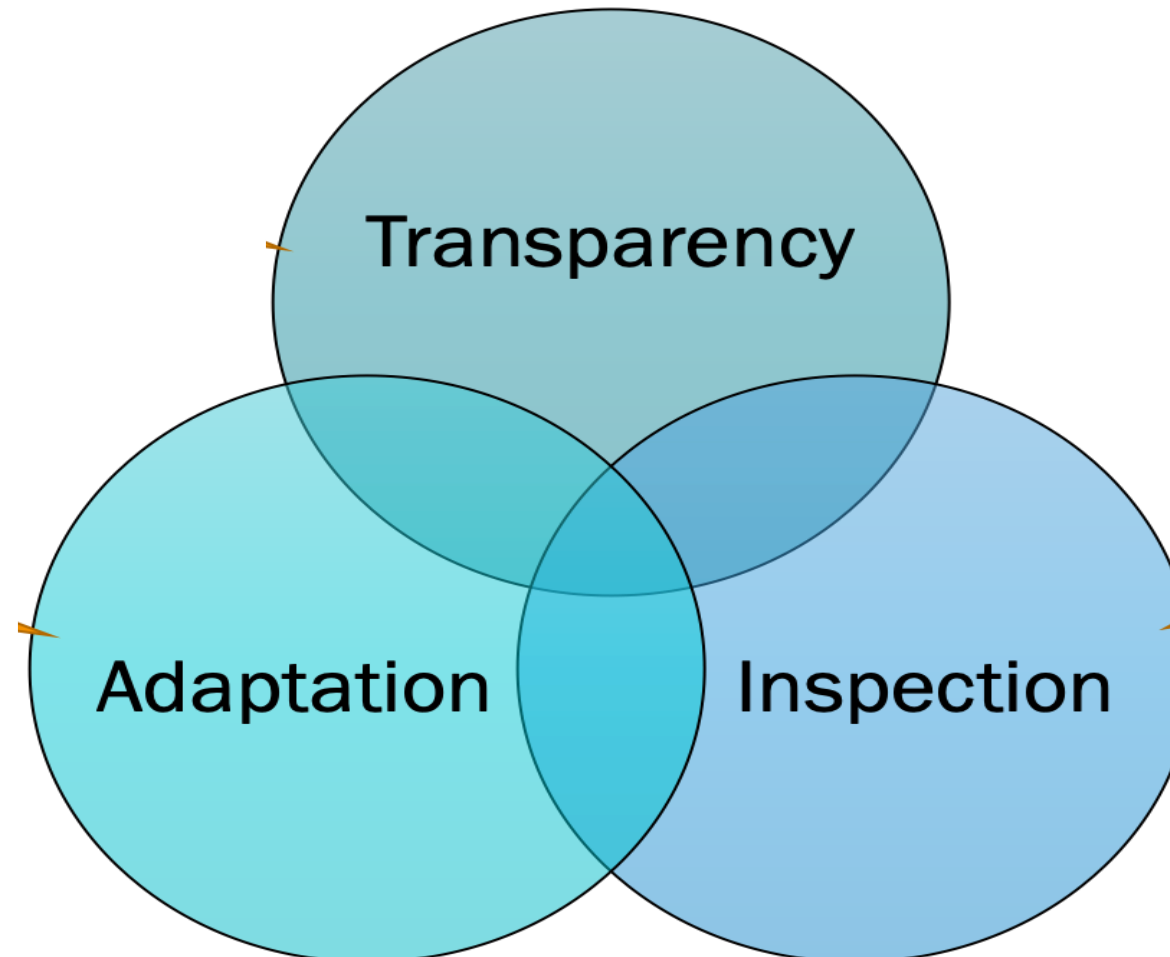
# What is Agile?

- Agile is an “umbrella” term describing a generic style of working
  - There are many “flavours” of agile (agile approaches)
    - each has specific strengths and weaknesses
- Effective agile is about making informed choices
  - Choose most appropriate one? or Combine several?
  - It is never a “One size fits all” solution
- All agile approaches share common features
  - Flexibility
  - Working closely with customer throughout
  - Ensuring final solution actually meets business need
  - Deferring detail decisions until last responsible moment
- But ultimately agile is a mindset - not a rule book
  - The application of agile must always be .....agile!



Empiricism – “the idea that all learning comes from **experience and observations** rather than theory or pure logic”

- All agile is based around 3 fundamental concepts



## Traditional (linear) style

Features fixed

BDUF (Big Design Up Front)

Working towards big horizons

- thinking / planning all long-term

Work completed phase by phase

- linear style
- analysis, design, build, test

Infrequent feedback

- long delays

Individual skillsets working in isolation

## Agile (iterative) style

Time, cost and quality fixed

EDUF (Enough Design Up Front)

Working towards horizons of all sizes

- long-term, medium-term, short-term, immediate

Work completed story (requirement) by story

- built-in feedback loops
- iterative development, incremental testing

Frequent feedback

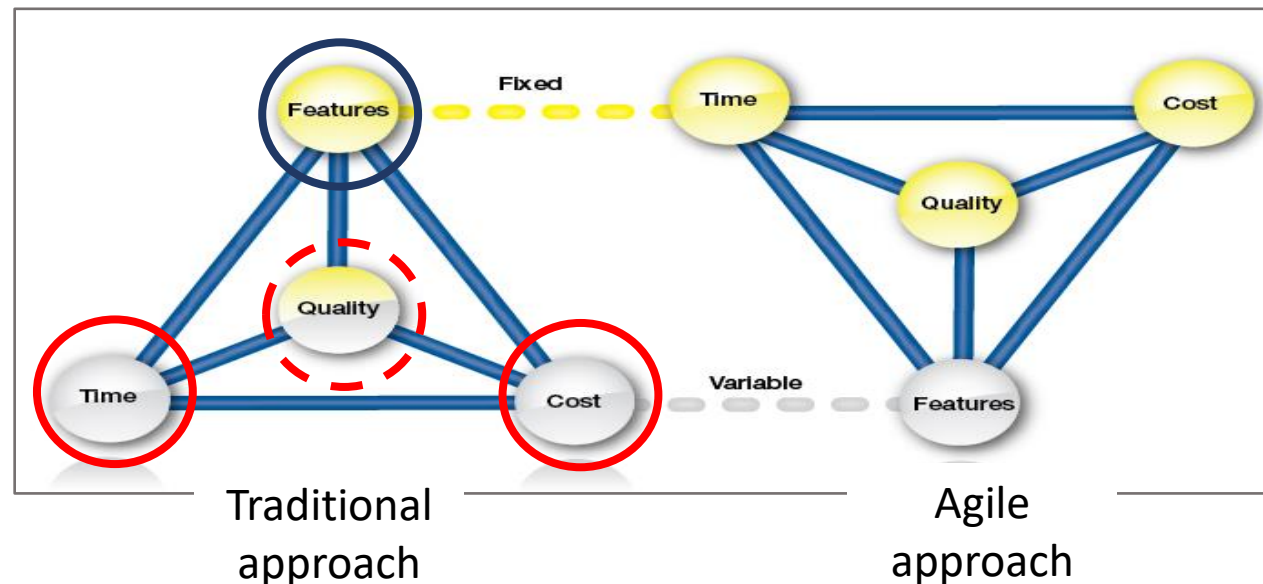
- short feedback loops

Collaborative working, multiskilled groups

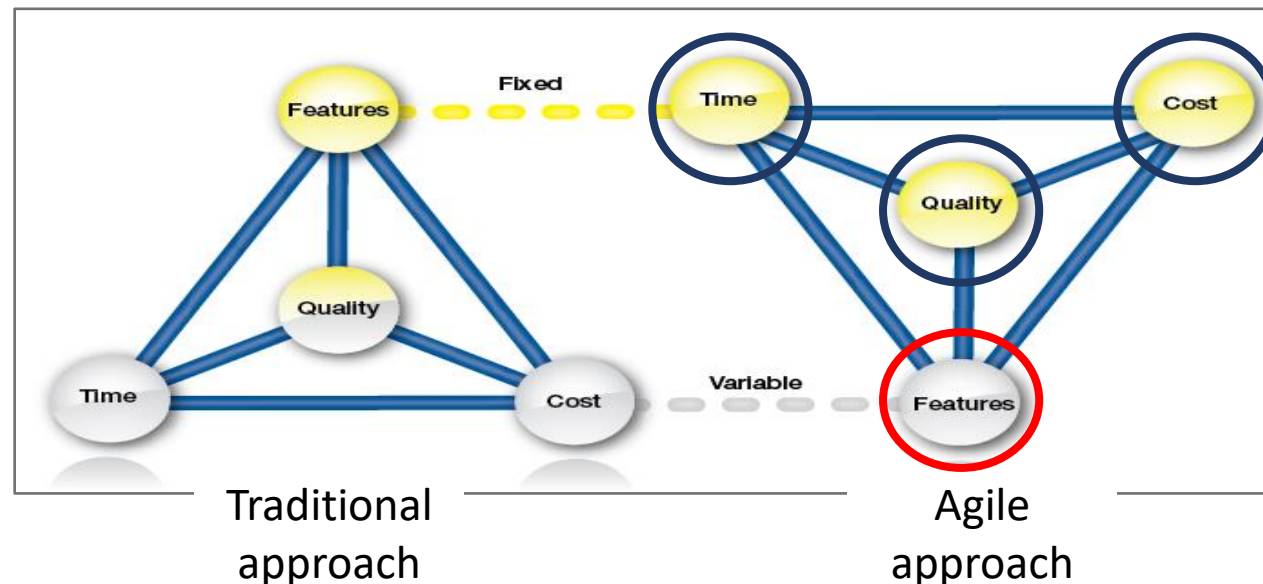


**Features fixed** - Traditional projects focus on delivering 100% of requirements

- When problems hit, to achieve 100% delivery, teams / projects typically
  - move the deadline back (variable time)
  - spend more money e.g. by adding team members (variable cost)
  - or vary both time and cost. (Slipping a deadline naturally increases costs)
- A fixed level of quality is also promised from the start
  - In reality quality is often compromised 😞



- An agile project primary objective is to deliver a solution **on-time, on-cost**
- Quality is non-negotiable in agile
  - quality criteria are built in at all levels, right down to individual stories (requirements)
- Agile contingency is built around features **Features negotiable**
  - delivering 100% of the solution is the best possible (but unlikely) agile outcome
  - Business will drop the least important / lowest value features to protect on-time delivery

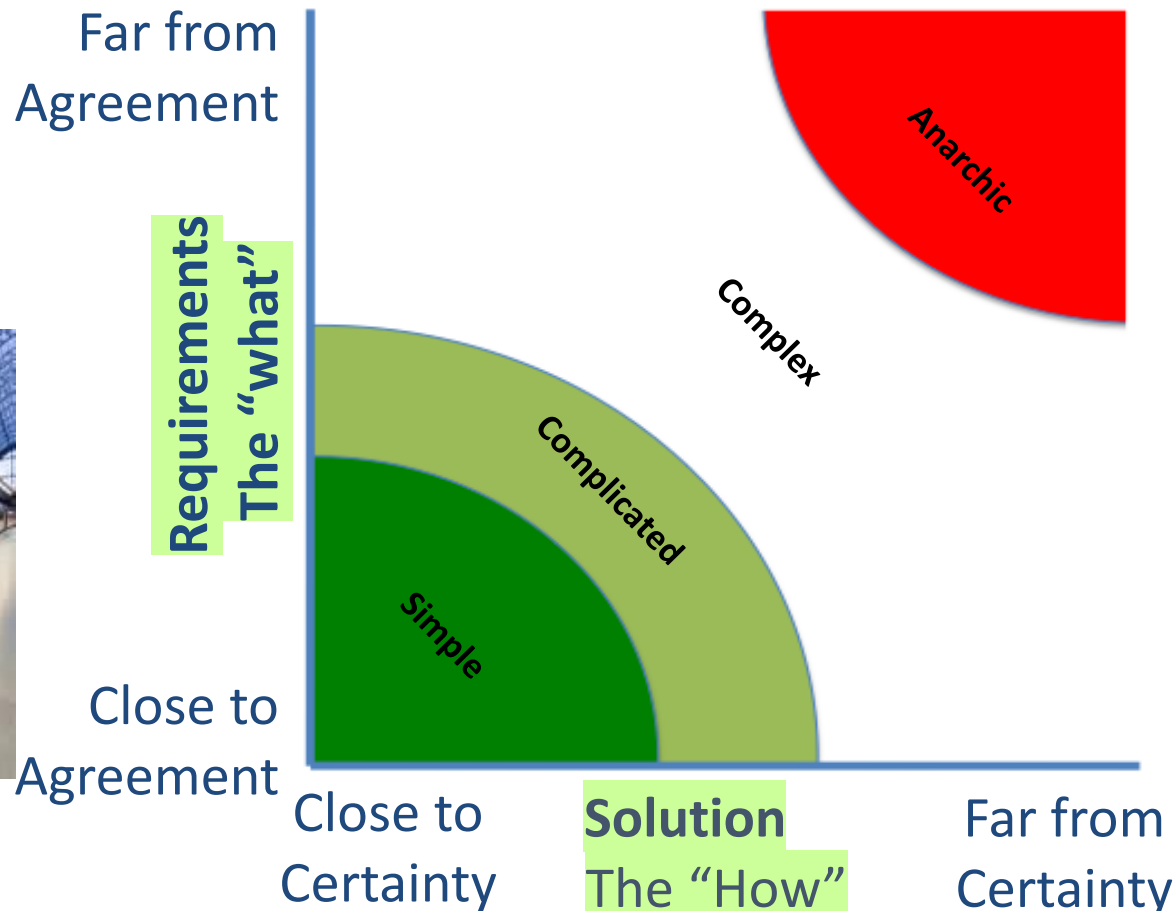


# What agile feels in real life

- It's about choosing the right approach
  - What sort of journey are you planning?
- The science behind this thinking

“Agile” style  
More uncertainty and a  
high probability of  
change

“Traditional” style  
More predictable



- Change - the norm (not the exception) in the modern VUCA world

*Volatile*  
*Uncertain*  
*Complex*  
*Ambiguous*



- Organisations and projects must deal with uncertainty and unknowns
  - because the real world is unpredictable



2020 - the ultimate example of a VUCA world

# Keeping up with the pace of change

- The pace of change is increasing exponentially
- To survive and thrive in the 21<sup>st</sup> century, all organisations need to be agile (i.e. flexible, nimble)
- Businesses that miss the warnings and don't adapt can fail very quickly
  - A few household names (there are many more!)



- Nokia underpinned the Finnish economy and education system
  - This failure had a far reaching impact

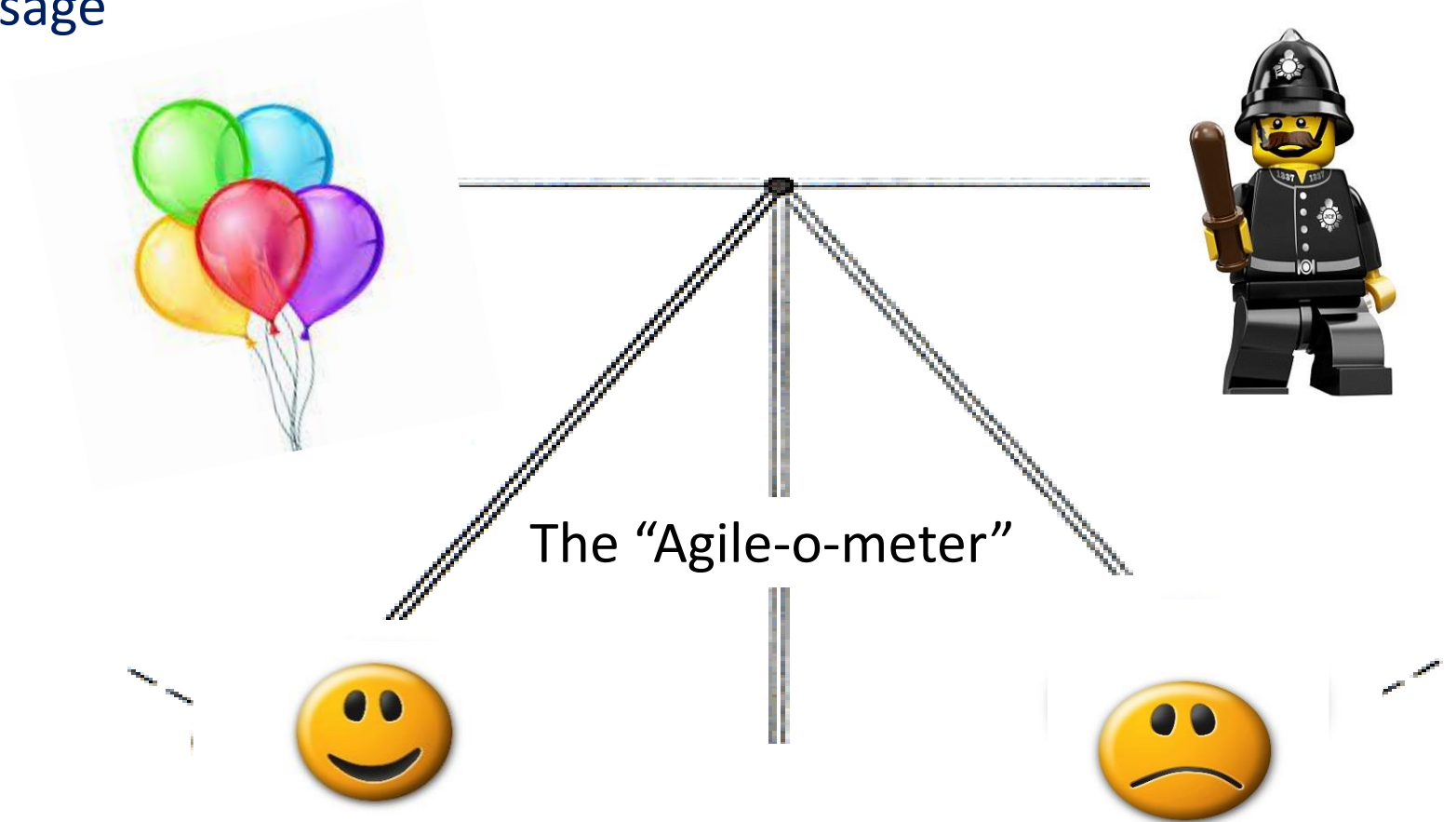
**NOKIA**  
Connecting People



# Agile is the only answer

- This is a commonly seen message

- The choice is NOT that simple

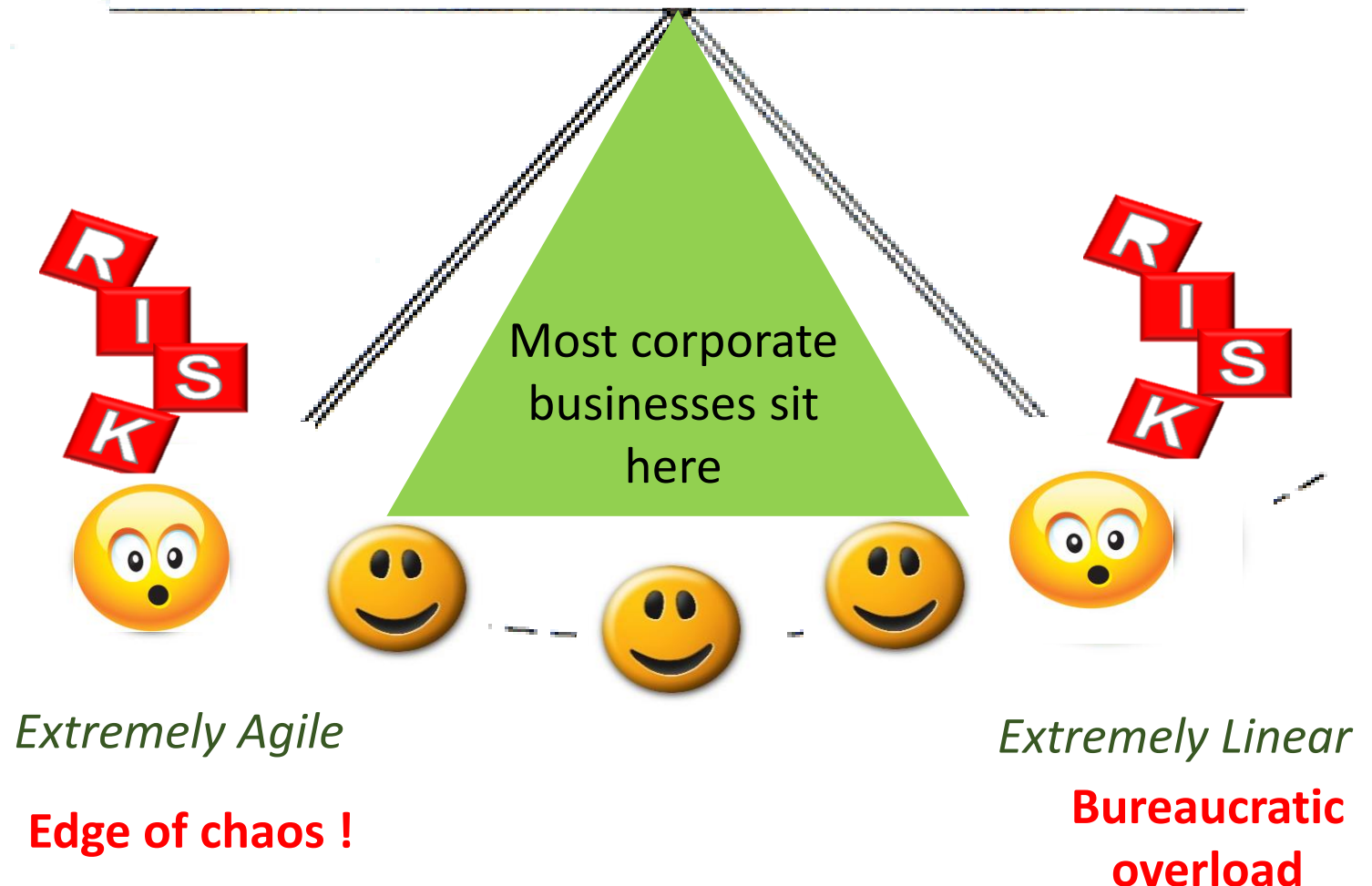


*"Congratulations!  
You are Agile"*

***"You are a failure!  
You are not Agile  
You must try harder"***

# Decision-making – the reality

- “HOW” is a spectrum
- Anywhere on the spectrum is OK, provided it is a conscious choice
- It all depends on
  - what type of business
  - this specific piece of work
- These factors (+ others) support making the right choices
- The corporate sweet spot
- Most large corporates do not work at the extremes



# Either Governance or Agile

- Being Agile does not negate need for good governance
  - But governance needs to be “appropriate” for what is being delivered
  - It’s about asking the right questions
- Agile has been effectively used to deliver in regulated organisations
  - Pharmaceutical (MHRA)
  - Financial (FCA)
  - Military / Defence (safety critical – multiple regulatory bodies)
  - Manufacturing (multiple regulatory bodies)
  - Insurance (FCA)
- “Refusing” governance here is not an option!
- Agile needs to work within constraints in these types of organisations
  - This means challenging some things, but also accepting what is non-negotiable
- Corporate Agile
  - a different agile world compared to “selling DVDs from your garage” but still agile



- Complex projects need “corporate strength” agile – Scrum here is not enough
  - Agile guidance exists for
    - Agile Project Management
    - Agile Programme Management
    - Agile Portfolio Management
    - Agile Digital Services
- “Corporate-strength” agile has successfully delivered in highly-regulated environments
  - Ministry of Defence military aircraft project
    - Complex contractual collaboration between 3 defence suppliers
  - A major offshore oil project
  - Production in a pharmaceutical
- .. Oh, and it also does small, simple projects



# Agile (only) for the young

- Agile is for everyone (not just for Kevin!!)
- Agile requires applying common sense
  - Sadly this is not always common!
- Agility is a natural human behaviour – we adapt to survive
  - Some 100 year olds are (still) very agile
    - Although at 100, this may be mental agility, rather than physical agility!
- Some agile fanatics can be extremely dogmatic in their thinking
  - “It says in the book”, rather than being flexible and adapting to the situation they face

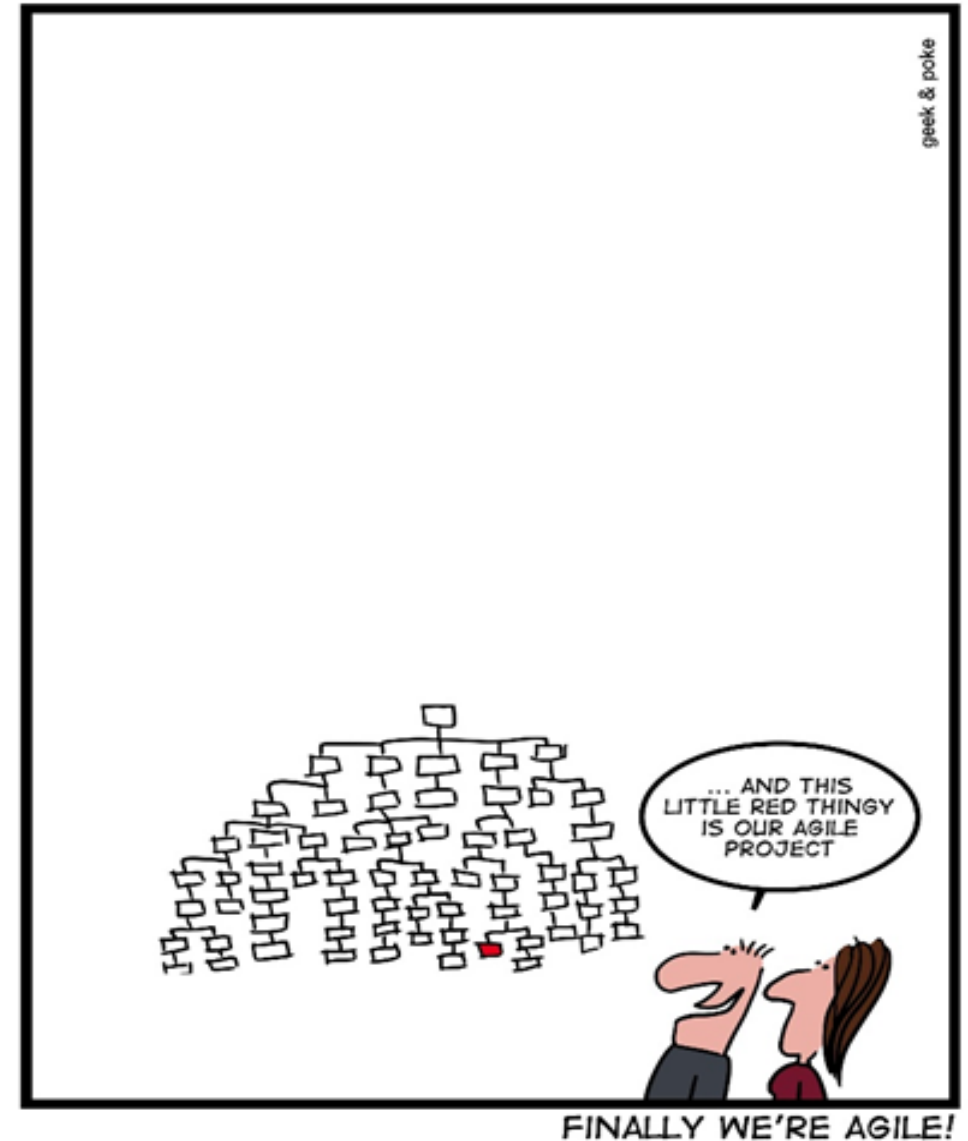


**My favourite  
personal experience**



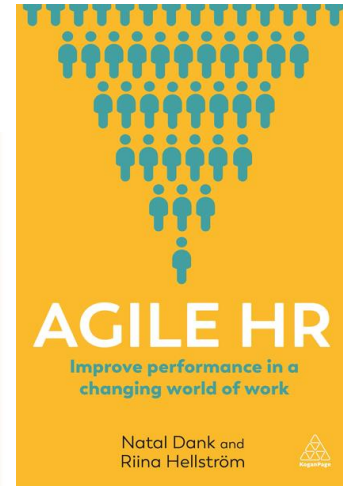
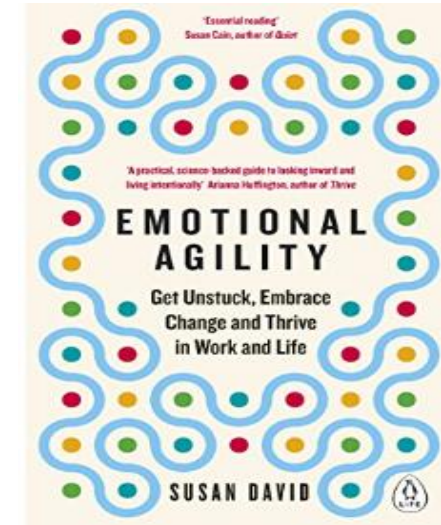
# Take “Agile Bragging” with a pinch of salt

- There is a lot of bragging about agile progress
  - Corporate announcements that “we are now agile”
  - And the reality.....??
- Transforming an organisation to be fully agile is a major change programme
  - It is not a binary instant cut-over
  - It is not just as simple as installing new software
  - It always involves significant behavioural change



# Agile – the message is getting out there...but...

- After challenging the status quo since late 1980s, agile is finally accepted
- There are now lots of books with “agile” in the title
- But we are also seeing some misguided Agile opinions
  - “Agile - the solution to all problems” (agile fanatics view)
  - “Agile - a necessary evil” (traditional thinkers view)
- Both views are dangerous



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AGILE  
for Instructional Designers

Iterative Project Management to Achieve Results

Megan Torrance

AGILE TESTING

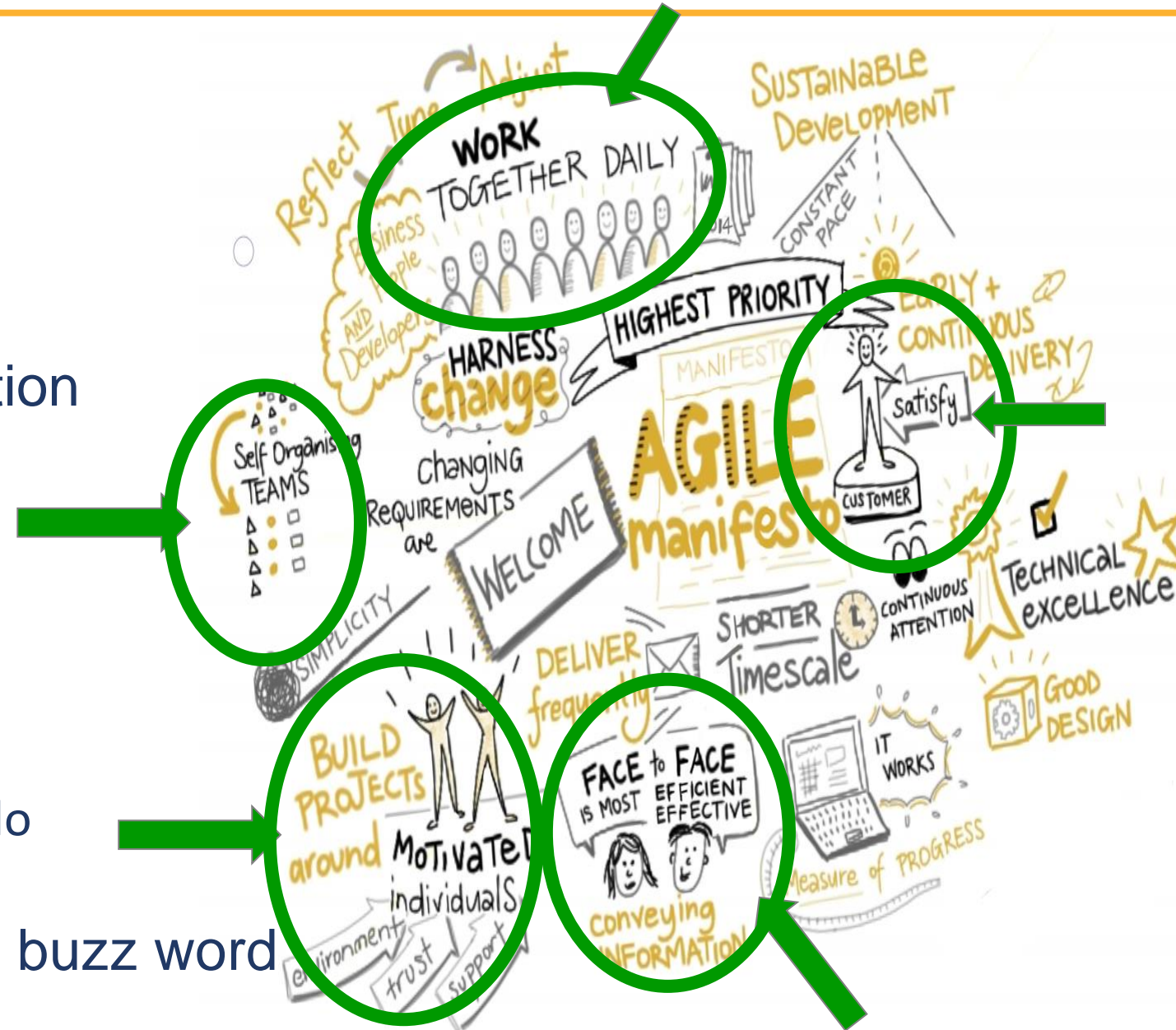
A PRACTICAL GUIDE FOR TESTERS AND AGILE TEAMS

LISA CRISPIN  
JANET GREGORY

Forewords by Mike Cohn and Brian Marick

# Agile – the big picture

- Agile is a mindset, based around common sense
- Agile gets results through teamwork and collaboration
  - Successful agile is driven by people
- Agile is all about “Being agile” and not just “Doing agile”
  - “Being agile” means agile thinking sits at the heart of everything you do
- Agile is so much more than just a buzz word





# Your questions



## Agile courses

- AgilePM<sup>®</sup>
- AgilePgM<sup>®</sup>
- AgileBA<sup>®</sup>
- Scrum Master
- Scrum Product Owner
- PRINCE2 Agile<sup>®</sup>
- PMI Agile
- Lean Six Sigma
- Kanban
- User Stories
- Agile Overview

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- P3O
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