Applying good context-driven testing in an Agile context

Markus Gärtner

http://www.shino.de/blog

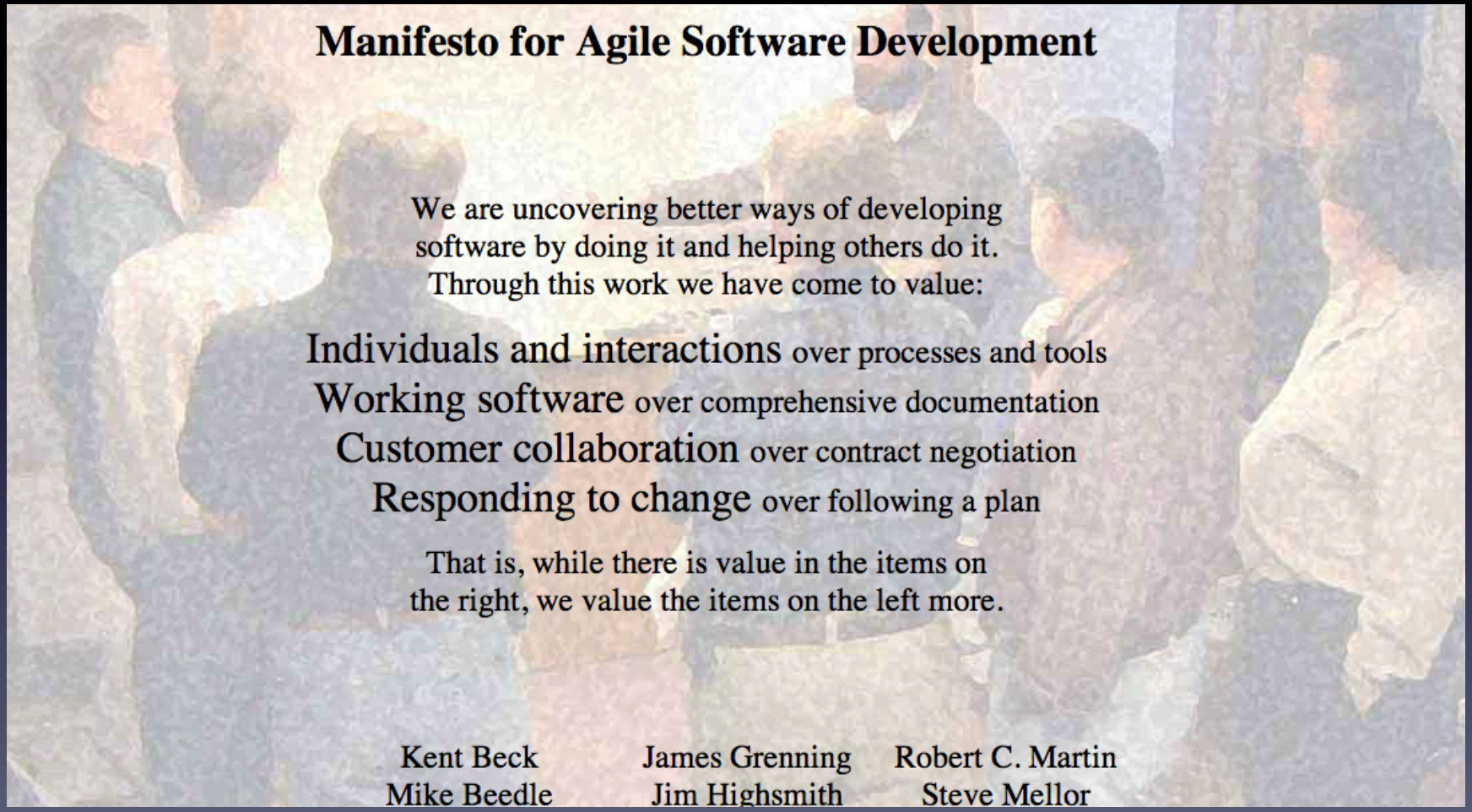
@mgaertne

it-agile GmbH

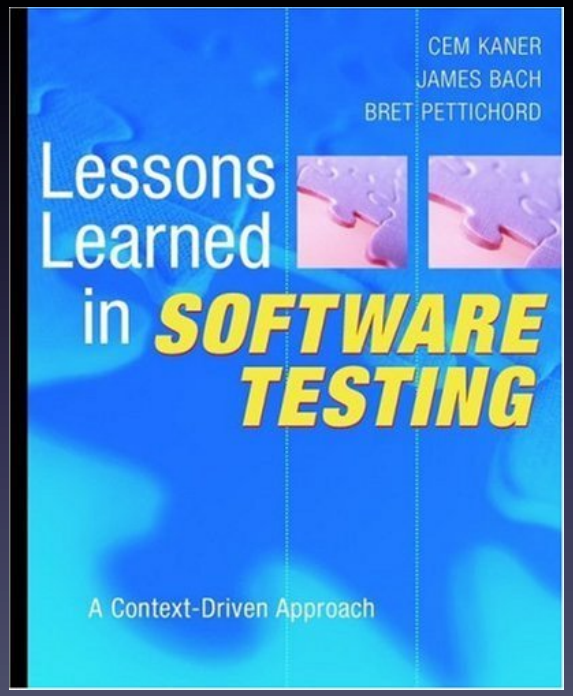
http://www.it-agile.de

@itagile

2001


Manifesto for Agile Software Development
We are uncovering better ways of developing
software by doing it and helping others do it.
Through this work we have come to value:
Individuals and interactions over processes and tools
Working software over comprehensive documentation
Customer collaboration over contract negotiation
Responding to change over following a plan
That is, while there is value in the items on
the right, we value the items on the left more.
Kent Beck
Mike Beedle
James Grenning
Jim Highsmith
Robert C. Martin
Steve Mellor

2001


CEM KANER
JAMES BACH
BRET PETTICHORD
Lessons Learned in SOFTWARE TESTING
A Context-Driven Approach

1999

The Seven Basic Principles of the Context-Driven School

1. The value of any practice depends on its context.
2. There are good practices in context, but there are no best practices.
3. People, working together, are the most important part of any project's context.
4. Projects unfold over time in ways that are often not predictable.
5. The product is a solution. If the problem isn't solved, the product doesn't work.
6. Good software testing is a challenging intellectual process.
7. Only through judgment and skill, exercised cooperatively throughout the entire project, are we able to do the right things at the right times to effectively test our products.

Four Schools anyone?

5 Views of Testing

Analytic School
sees testing as rigorous and technical with many proponents in academia

Standard School
sees testing as a way to measure progress with emphasis on cost and repeatable standards

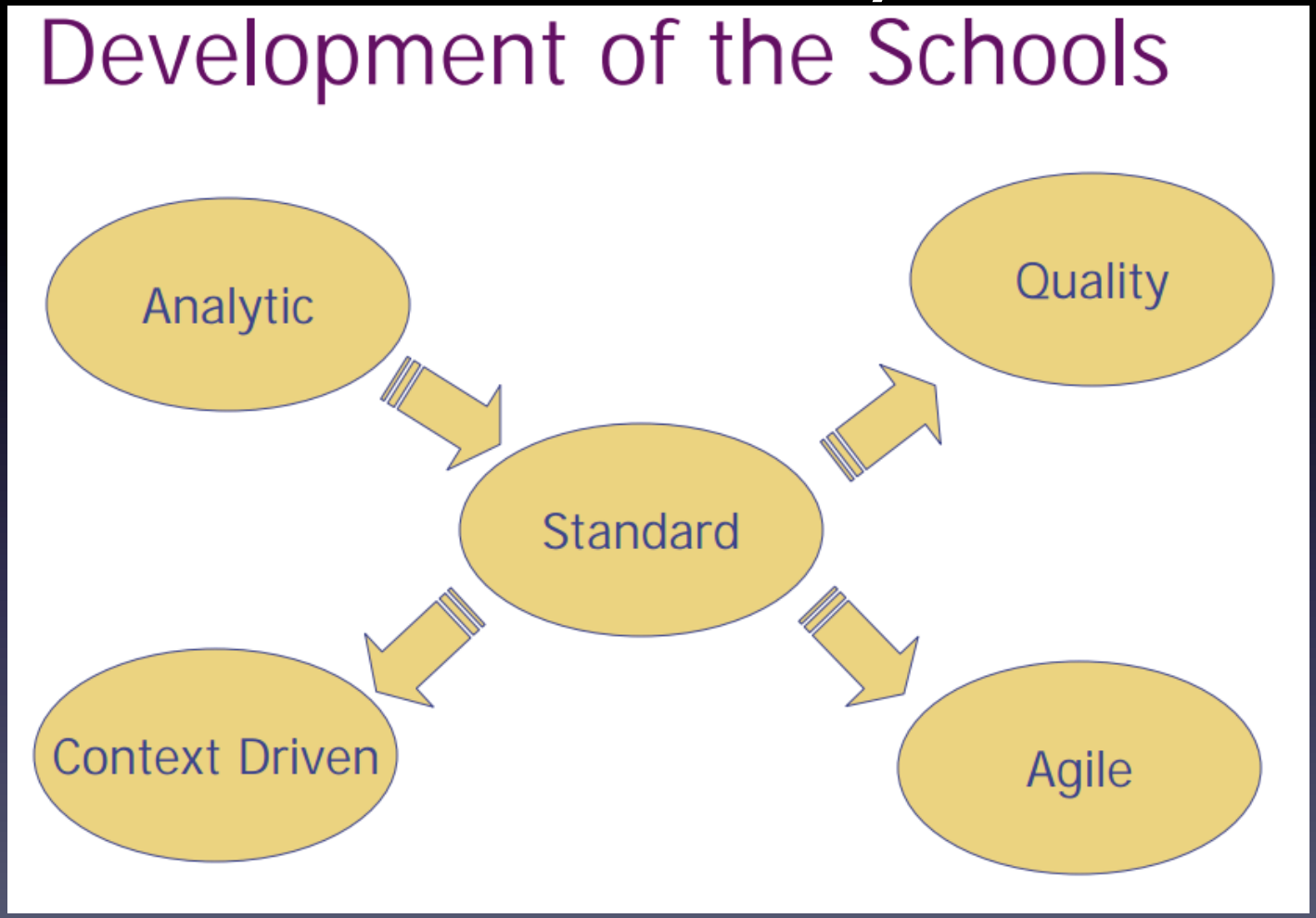
Quality School
emphasizes process, policing developers and acting as the gatekeeper

Context-Driven School
emphasizes people, seeking bugs that stakeholders care about

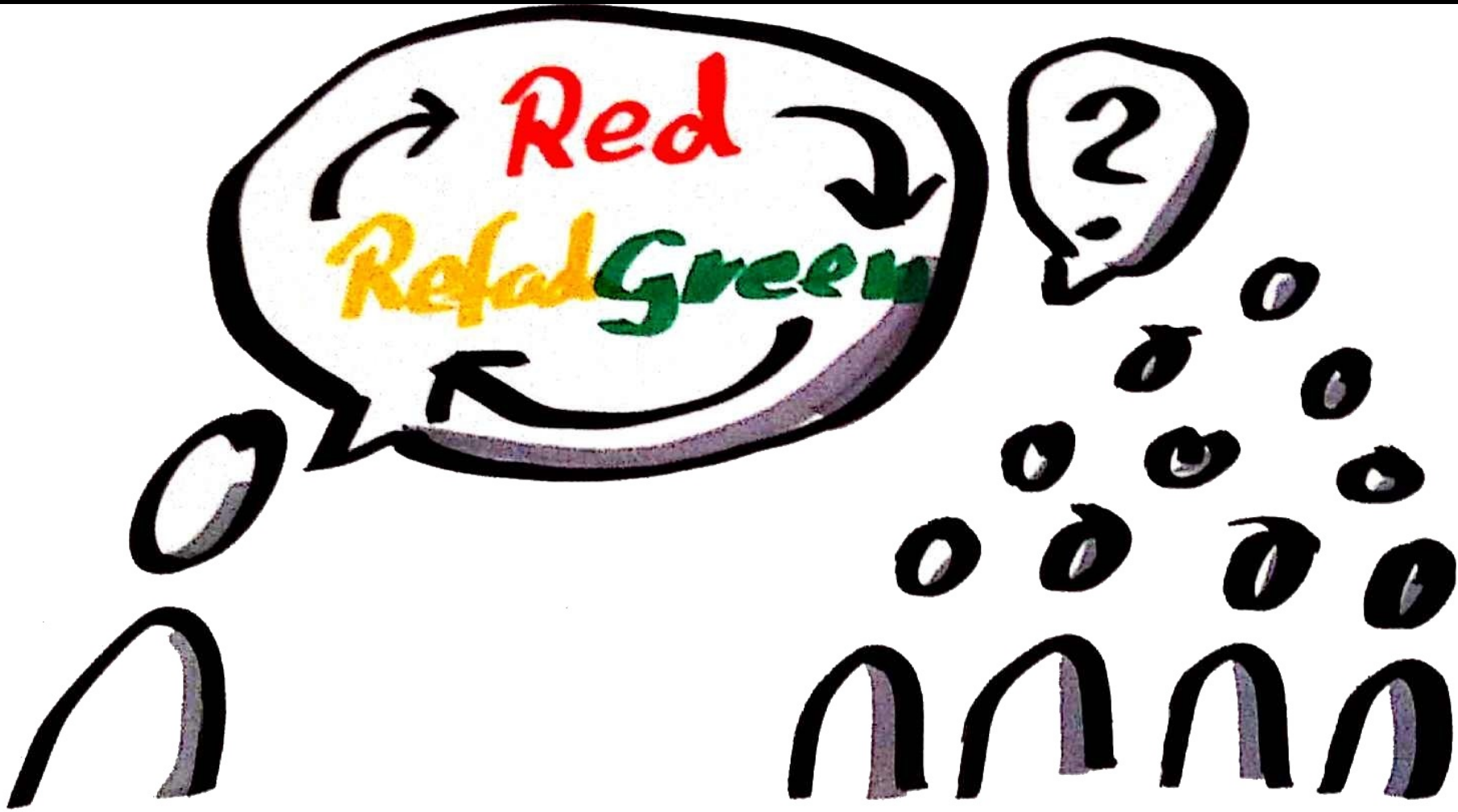
Agile School
uses testing to prove that development is complete; emphasizes automated testing

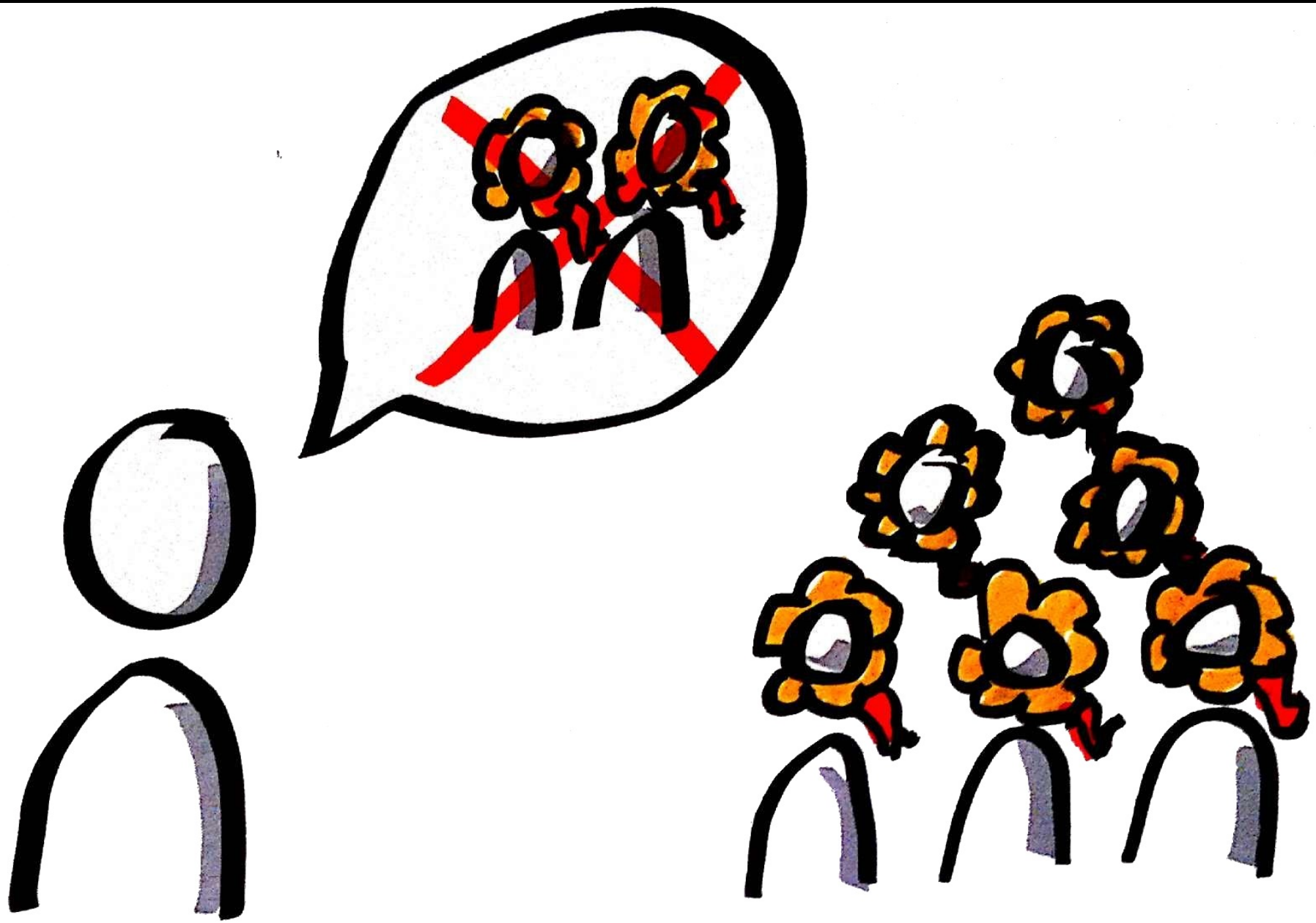
http://www.prismnet.com/~wazmo/papers/four_schools.pdf

Four Schools anyone?



http://www.prismnet.com/~wazmo/papers/four_schools.pdf

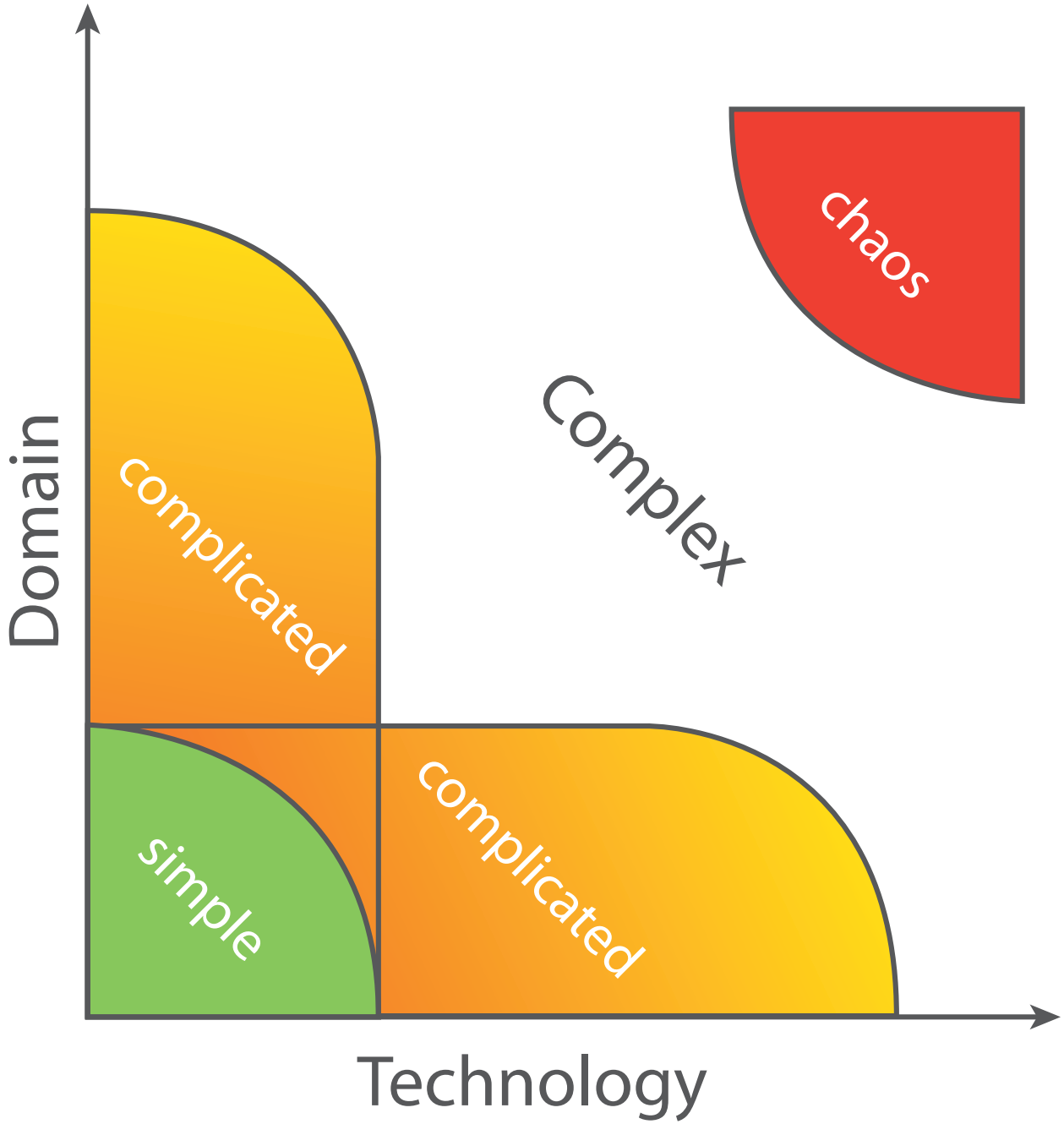

Red
Refad
Green
?



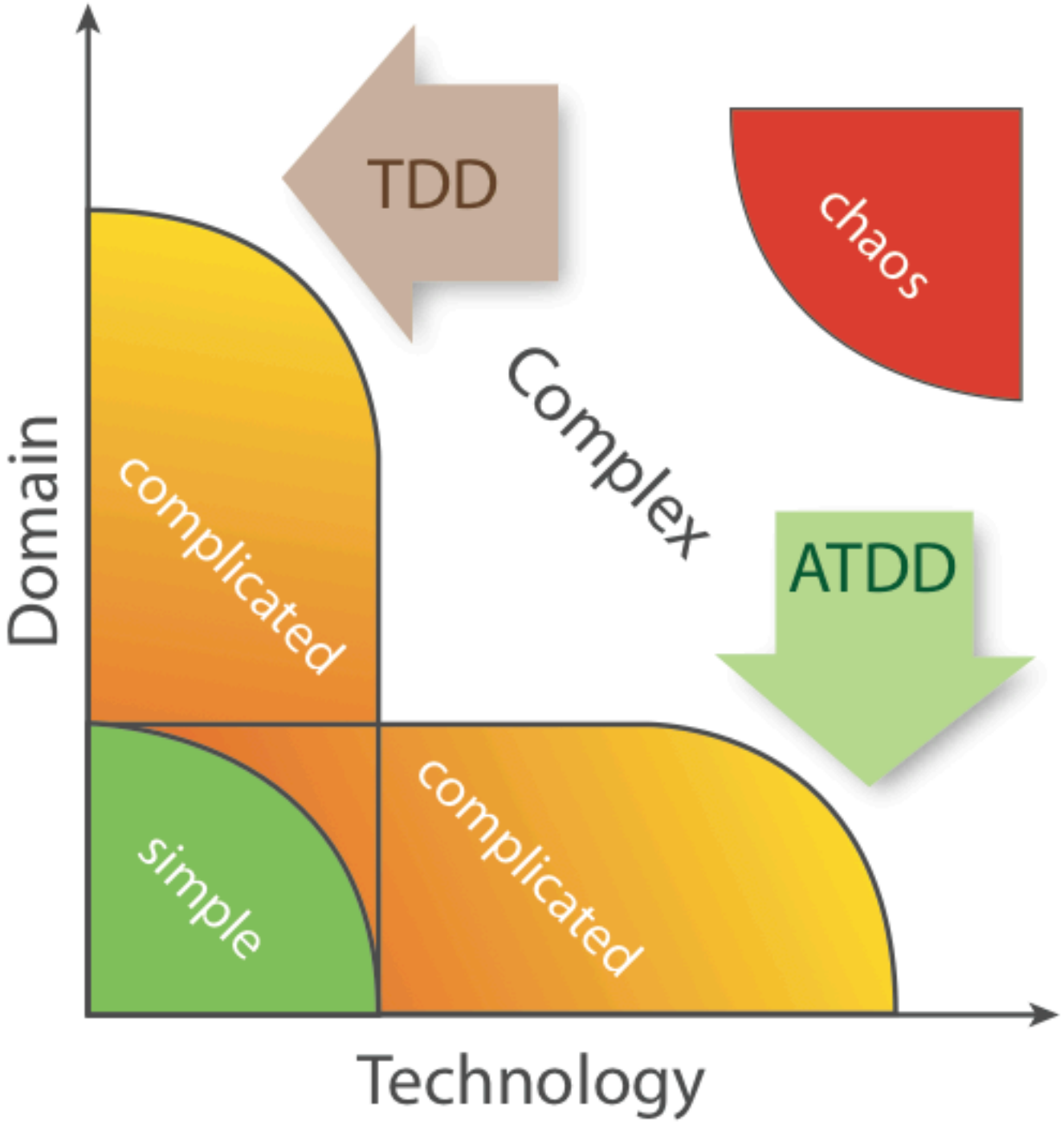
Human System Dynamics

http://wiki.hsdinstitute.org/cde

PROJECTS UNFOLD OVER TIME IN WAYS THAT ARE OFTEN NOT PREDICTABLE.

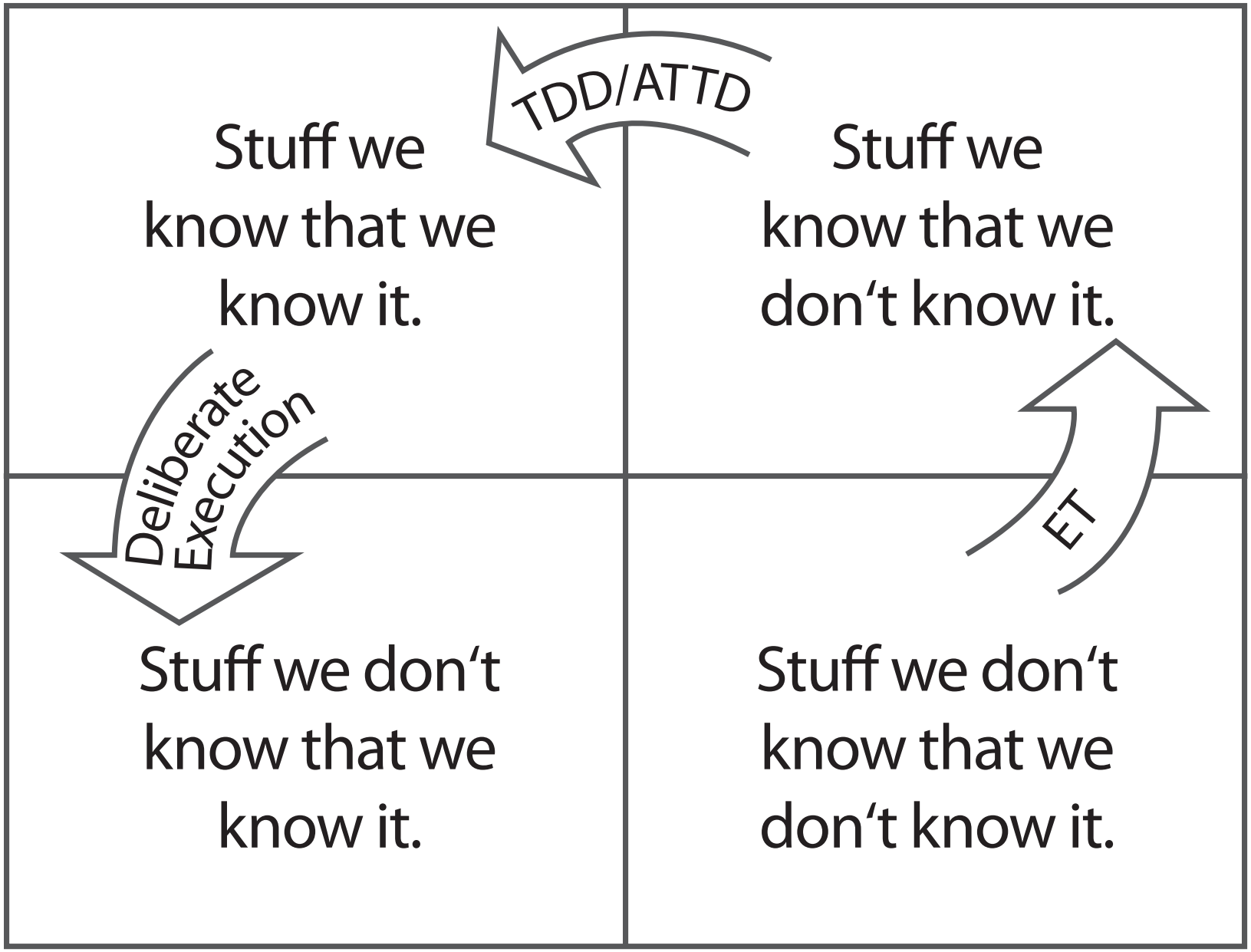

chaos
Complex
Domain
complicated
simple
complicated
Technology

THE VALUE OF ANY PRACTICE DEPENDS ON ITS CONTEXT.

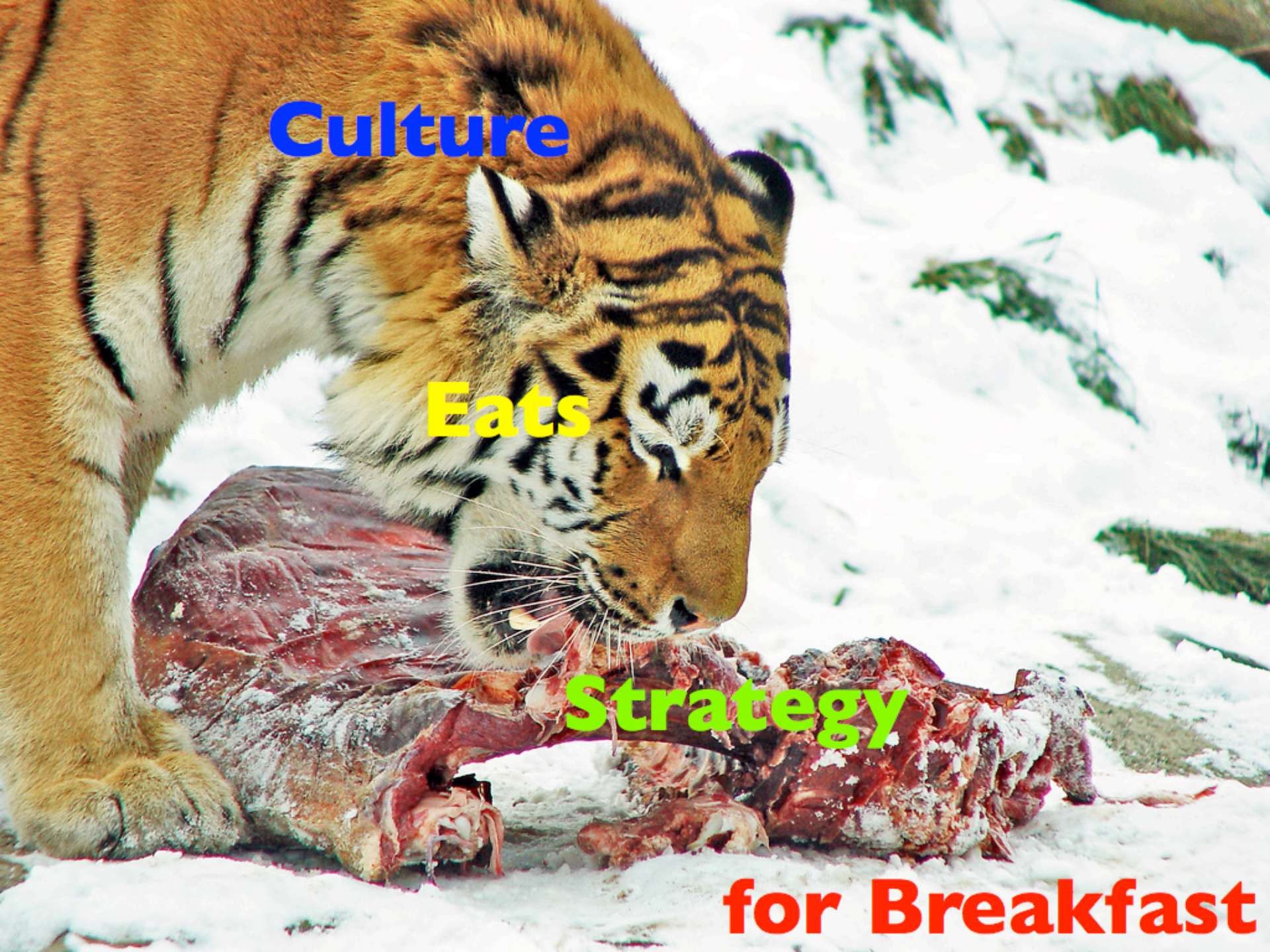

TDD
chaos
Domain
complicated
Complex
ATDD
simple
complicated
Technology

THERE ARE GOOD PRACTICES IN CONTEXT, BUT THERE ARE NO BEST PRACTICES.

THE PRODUCT IS A SOLUTION. IF THE PROBLEM ISN‘T SOLVED, THE PRODUCT ISN‘T WORKING.


TDD/ATTD
Stuff we know that we know it.
Stuff we know that we don‘t know it.
Deliberate Execution
ET
Stuff we don‘t know that we know it.
Stuff we don‘t know that we don‘t know it.

ONLY THROUGH JUDGMENT AND SKILL, EXERCISED COOPERATIVELY THROUGHOUT THE ENTIRE PROJECT ARE WE ABLE TO DO THE RIGHT THINGS AT THE RIGHT TIMES TO EFFECTIVELY TEST OUR PRODUCTS.


Culture
Eats
Strategy
for Breakfast

PEOPLE, WORKING TOGETHER, ARE THE MOST IMPORTANT PART OF ANY PROJECT‘S CONTEXT.

People

Architecture

(formal and informal)

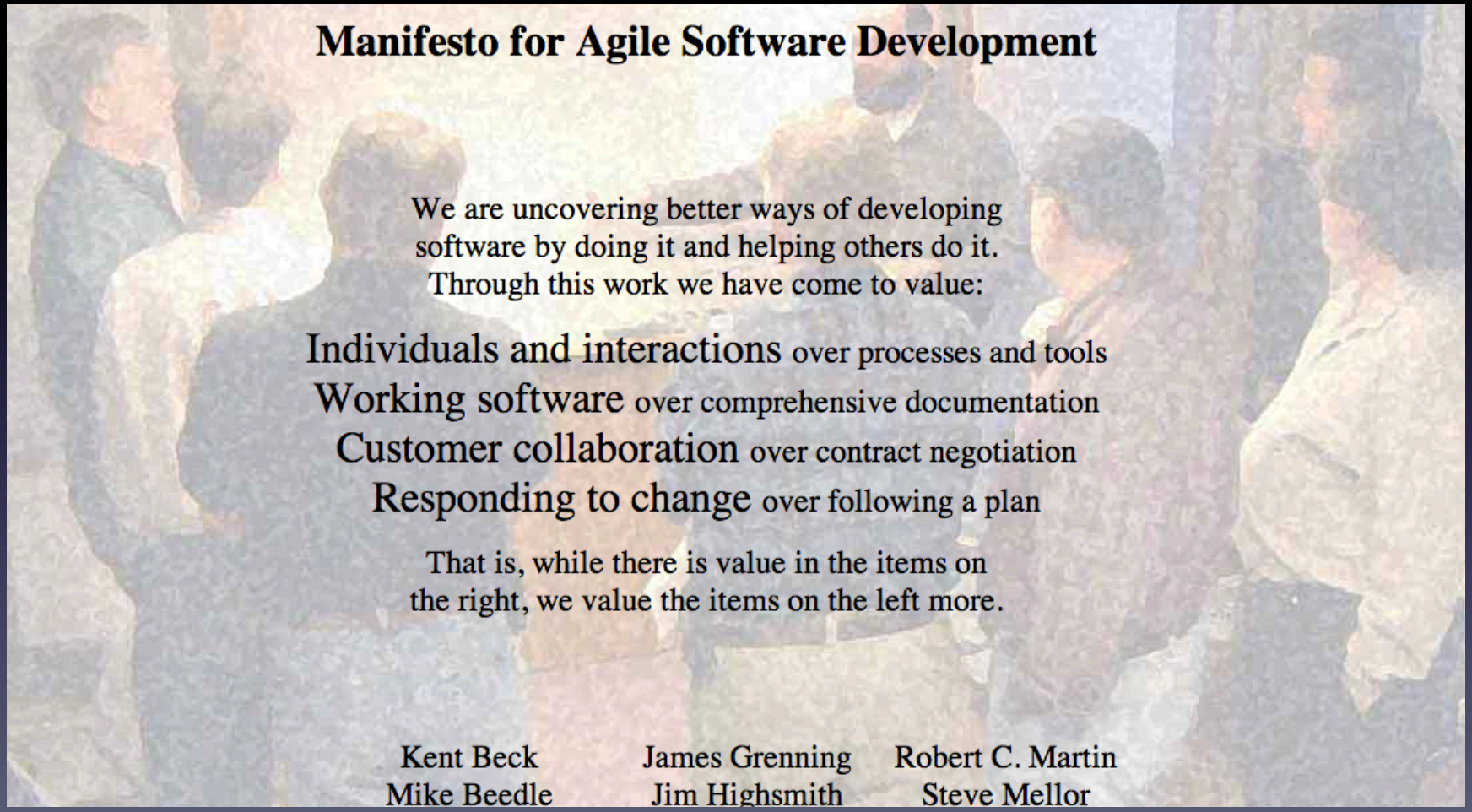
Routines

(formal and informal)

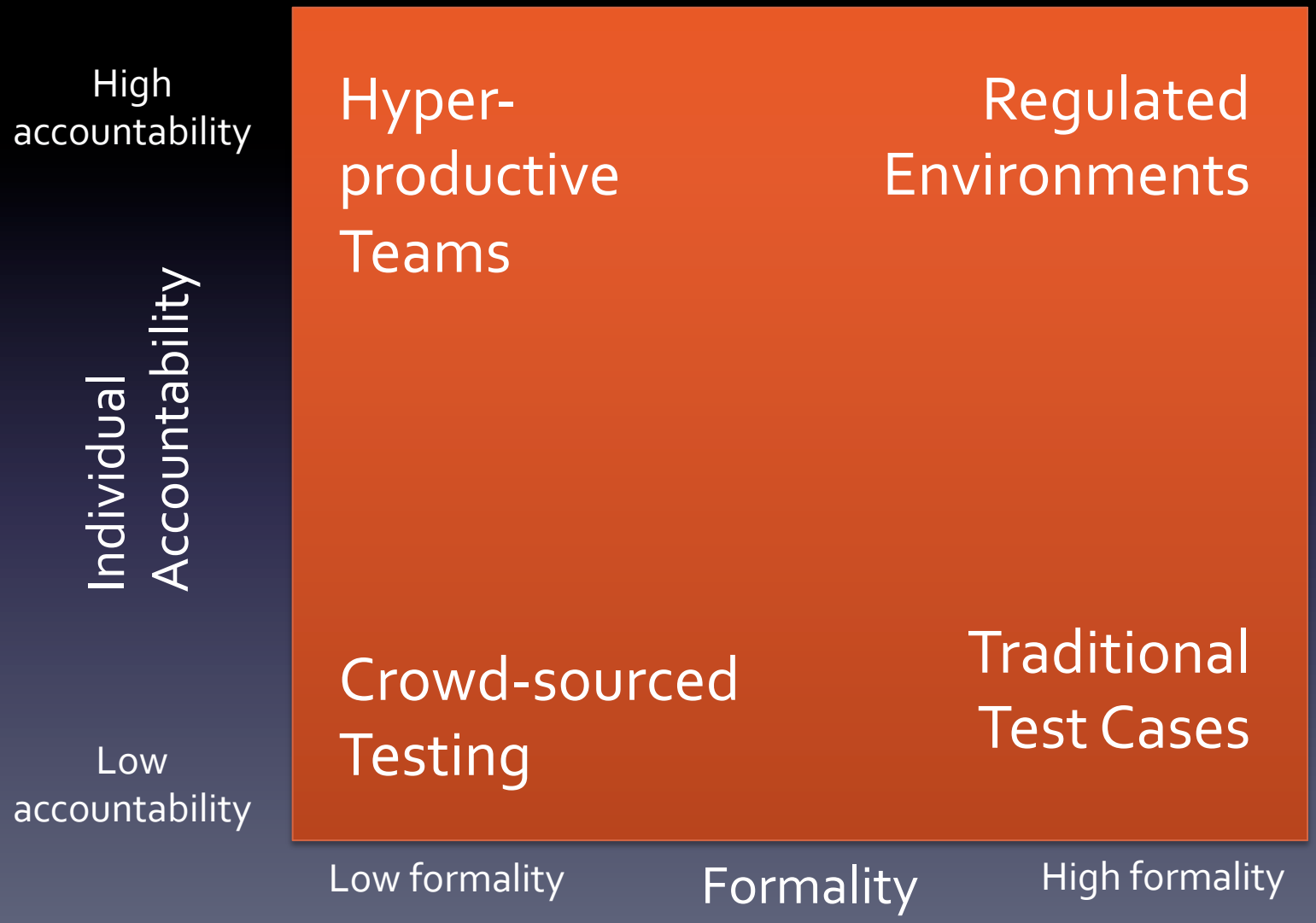
Culture

http://www.ewts.at/Bilder%20online/Papers%202004/Roberts_%20Elements%20of%20Organizational%20Design.ppt

2001


Manifesto for Agile Software Development
We are uncovering better ways of developing
software by doing it and helping others do it.
Through this work we have come to value:
Individuals and interactions over processes and tools
Working software over comprehensive documentation
Customer collaboration over contract negotiation
Responding to change over following a plan
That is, while there is value in the items on
the right, we value the items on the left more.
Kent Beck
Mike Beedle
James Grenning
Jim Highsmith
Robert C. Martin
Steve Mellor

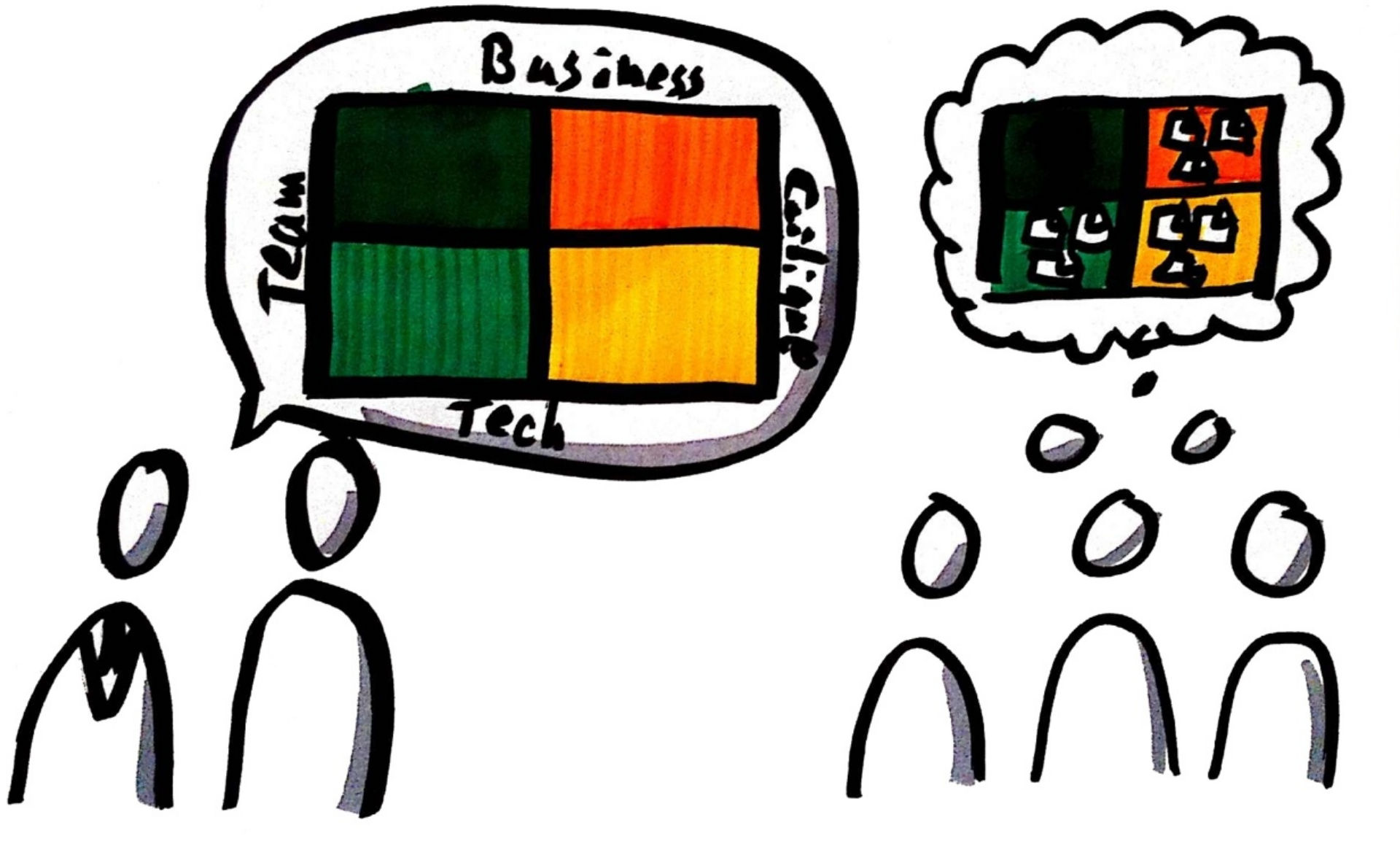
The Testing Landscape



Information Objective

From Conformance to requirements

To Find important bugs fast.


Business
Team
Culture
Tech

GOOD SOFTWARE TESTING IS A CHALLENGING INTELLECTUAL PROCESS.

Questions?

Markus Gärtner

http://www.shino.de/blog

@mgaertne

it-agile GmbH

http://www.it-agile.de

@itagile