



<DEV>

MOUNTAIN

TECH FESTIVAL

สยามชัมนาค
SIAM CHAMNANKIT

Technical Excellence
back to basic



Somkiat Puisungnoen

Update Info 1 View Activity Log 10+ ...

Timeline About Friends 3,138 Photos More

When did you work at Opendream? X

... 22 Pending Items

Post Photo/Video Live Video Life Event

What's on your mind?

Public Post

Intro

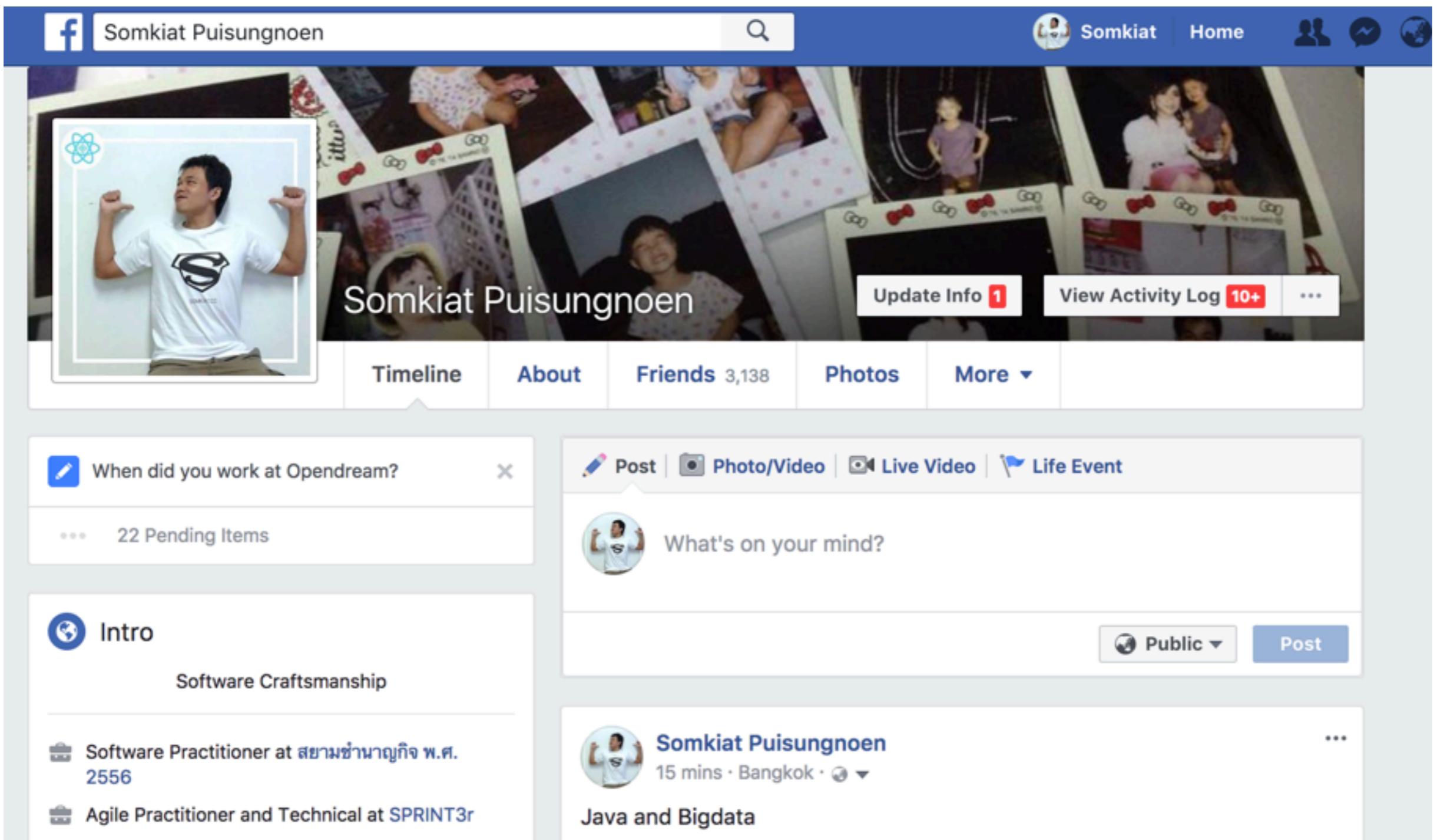
Software Craftsmanship

Software Practitioner at สยามชานนาญกิจ พ.ศ. 2556

Agile Practitioner and Technical at SPRINT3r

Somkiat Puisungnoen 15 mins · Bangkok · ...

Java and Bigdata



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Like Following Share ...

+ Add a Button



Looks like something went wrong!

We track these errors automatically, but if the problem persists feel free to contact us. In the meantime, try refreshing.



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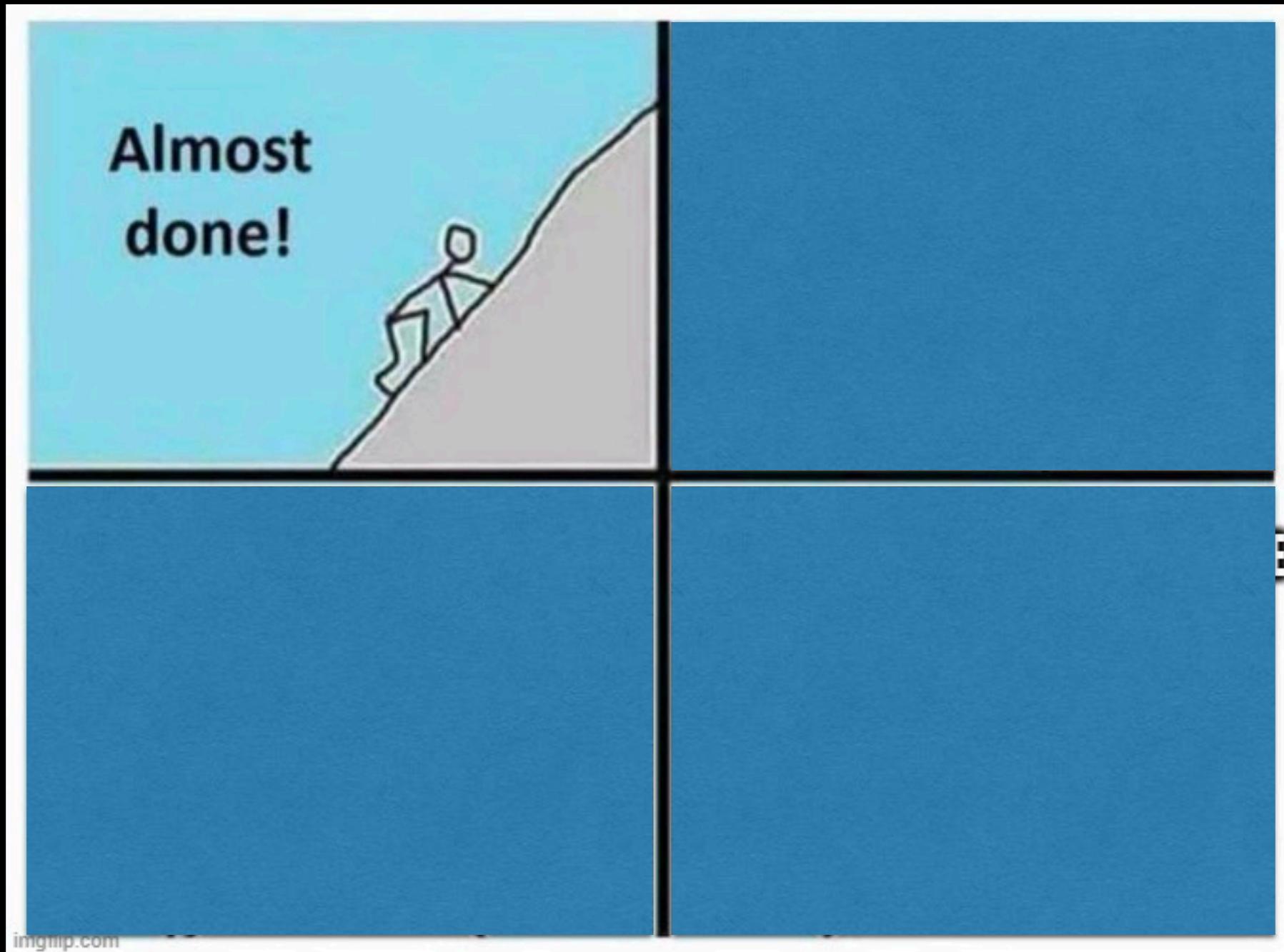
Stack Overflow is currently offline for maintenance

Routine maintenance usually takes less than an hour. If this turns into an extended outage, we will [tweet updates from @StackStatus](#) or post on our [blog](#).

```
^@^C^A>^D^A^@^P^@^C^AL^D^A^@^T^@^C^Aº
- stack overflow^M
^@^C^@R6003^M
- integer divide by 0^M
^@      ^@R6009^M
- not enough space for environment^M
^@^R^@R6018^M
- unexpected heap error^M
^@ü^@^M
^@ÿ^@run-time error ^@^B^@R6002^M
  floating point support not loaded^M
```

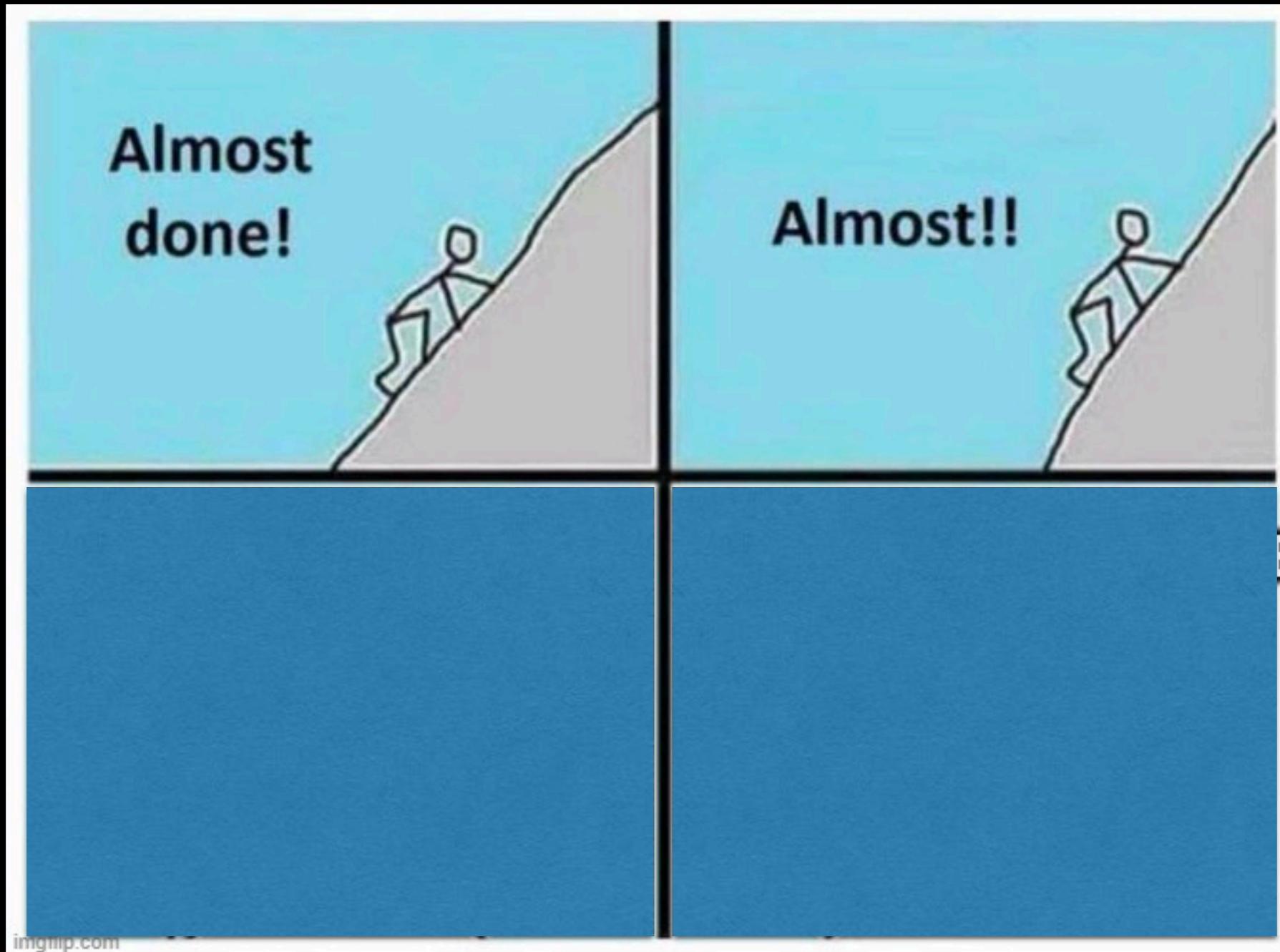






imgflip.com





imgflip.com

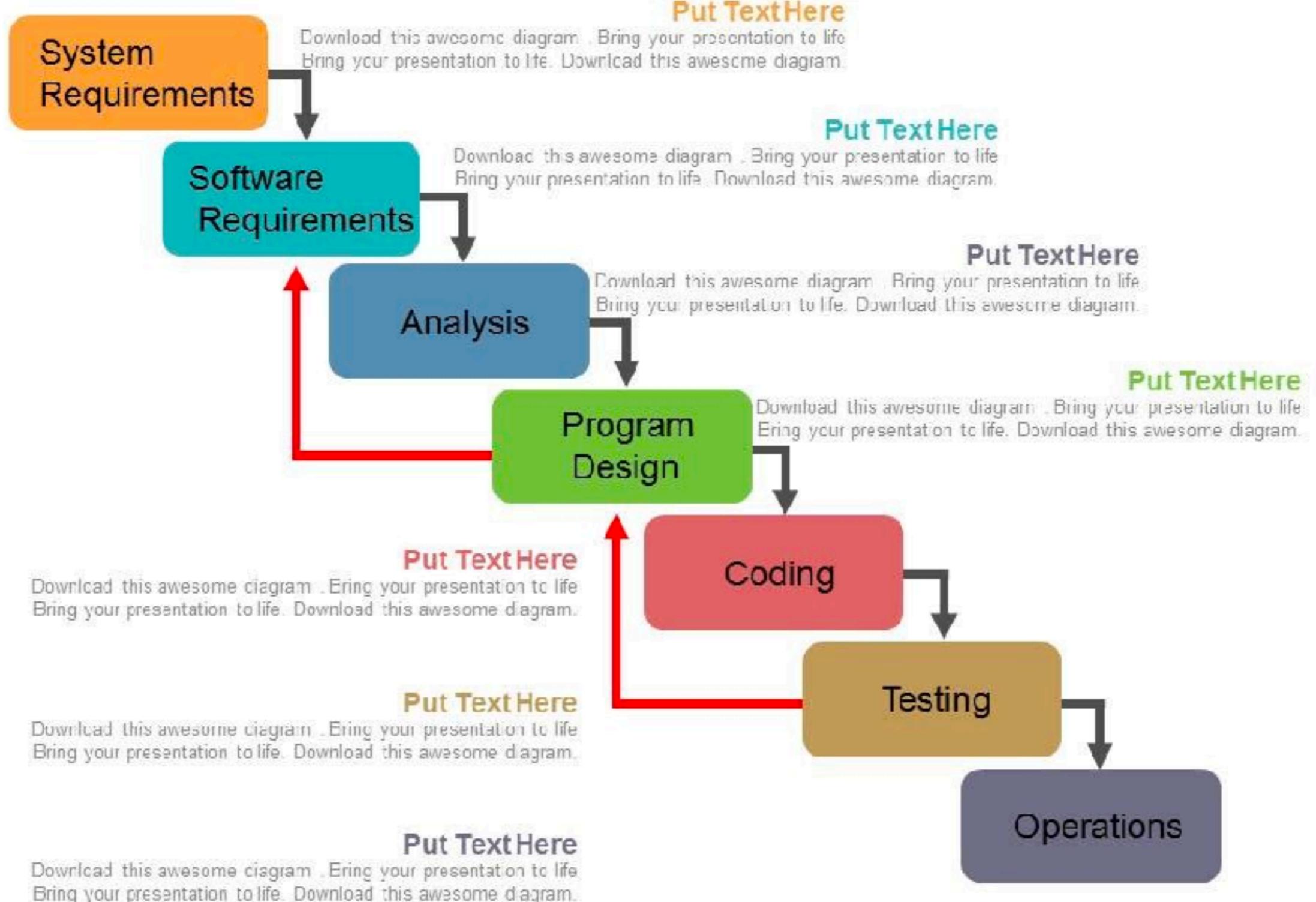








Basic Waterfall Model For Software Development



scrum

rup

dilbert

distributed

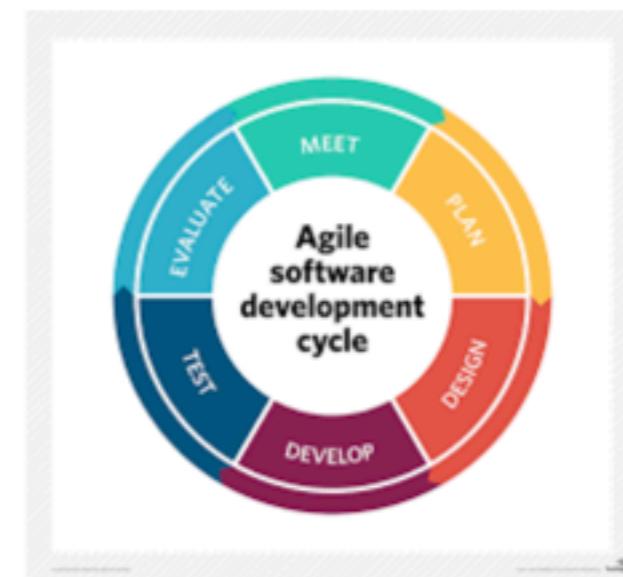
software engineering

metode

simple

diagram

infographic



1920 × 1080 - lynda.com

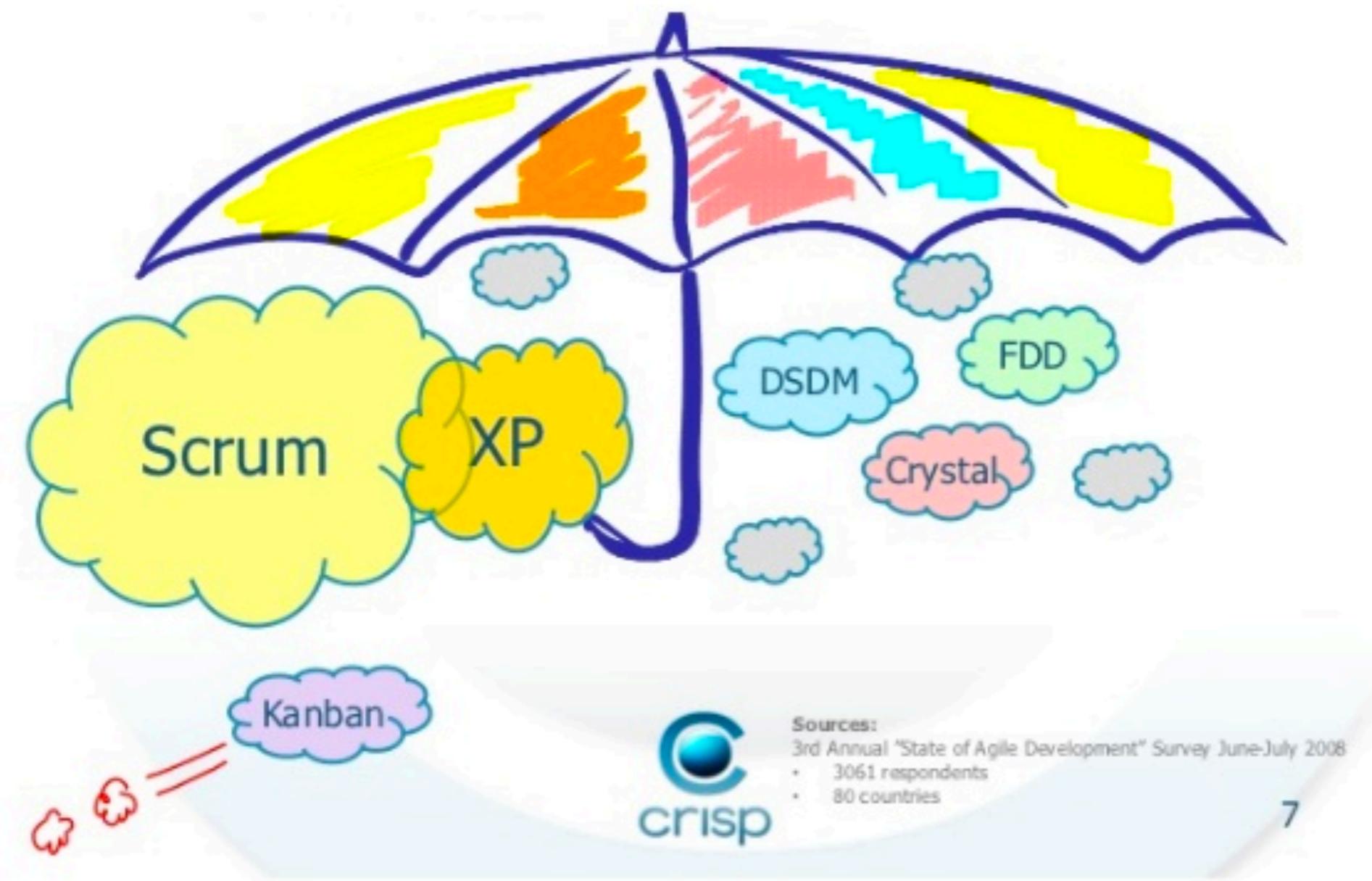


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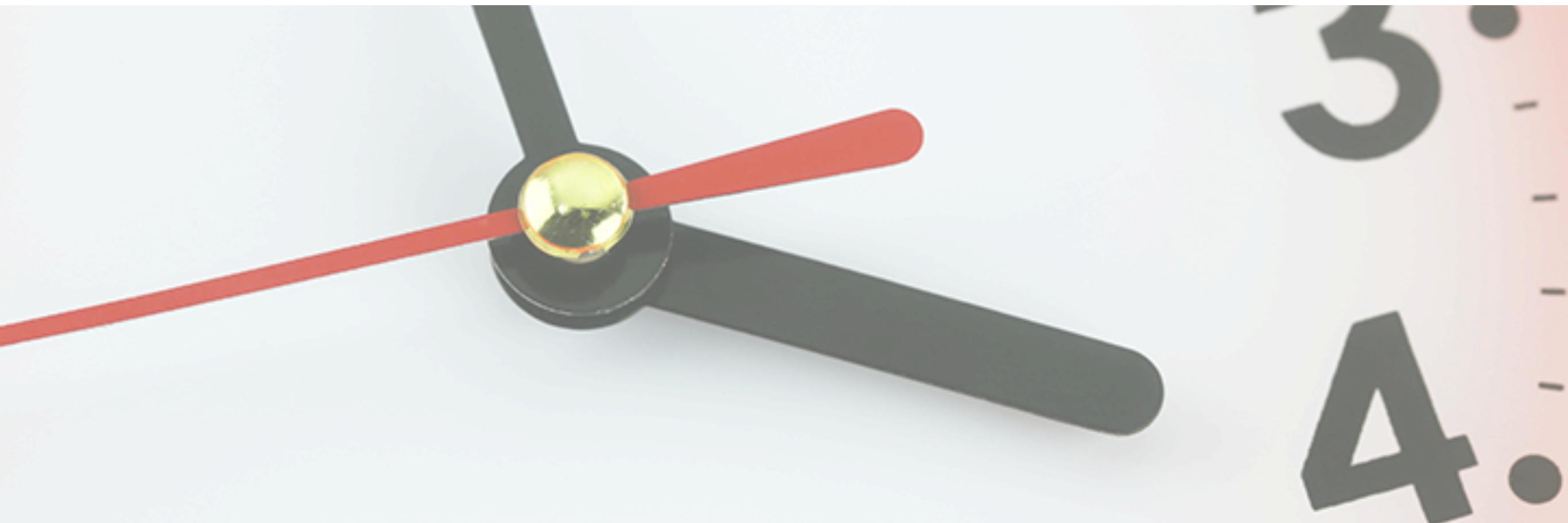
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THE “AGILE UMBRELLA”



Manifesto of Agile



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

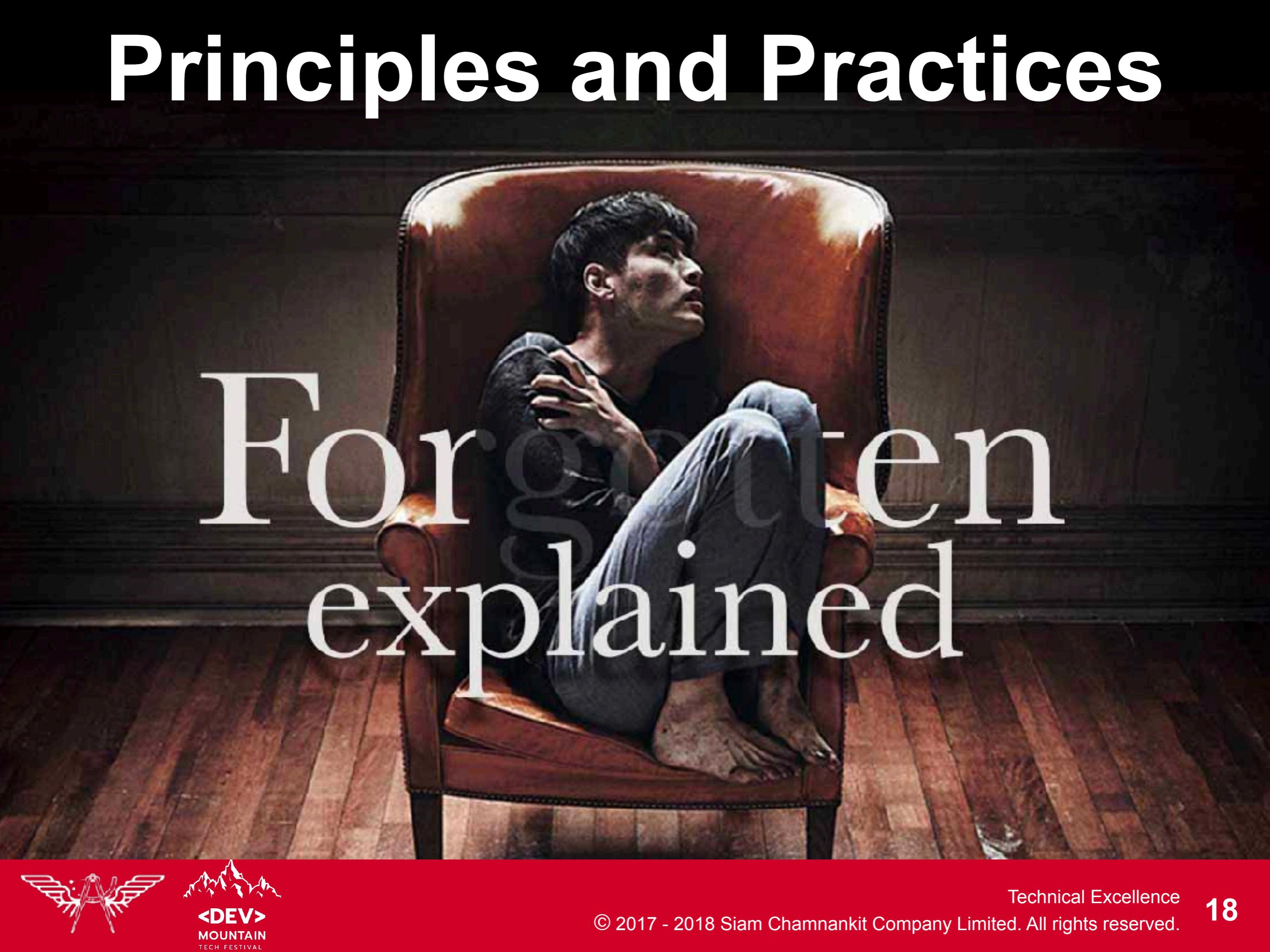
Customer collaboration over contract negotiation

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.



Principles and Practices

A photograph of a man with dark hair and a beard, wearing a black t-shirt and blue jeans. He is sitting in a large, brown leather armchair, looking upwards and to his right with a thoughtful expression. His hands are clasped together near his chest. The background is dark and out of focus.

Forgotten
explained



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Principles behind the Agile Manifesto

We follow these principles:

Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.

Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage.

Deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale.



Business people and developers must work together daily throughout the project.

Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done.

The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.

Working software is the primary measure of progress.

Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely.



Continuous attention to technical excellence and good design enhances agility.

Simplicity--the art of maximizing the amount of work not done--is essential.

The best architectures, requirements, and designs emerge from self-organizing teams.

At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly.



~~Process vs Technical~~



Process and Technical



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Software Development

back to basic



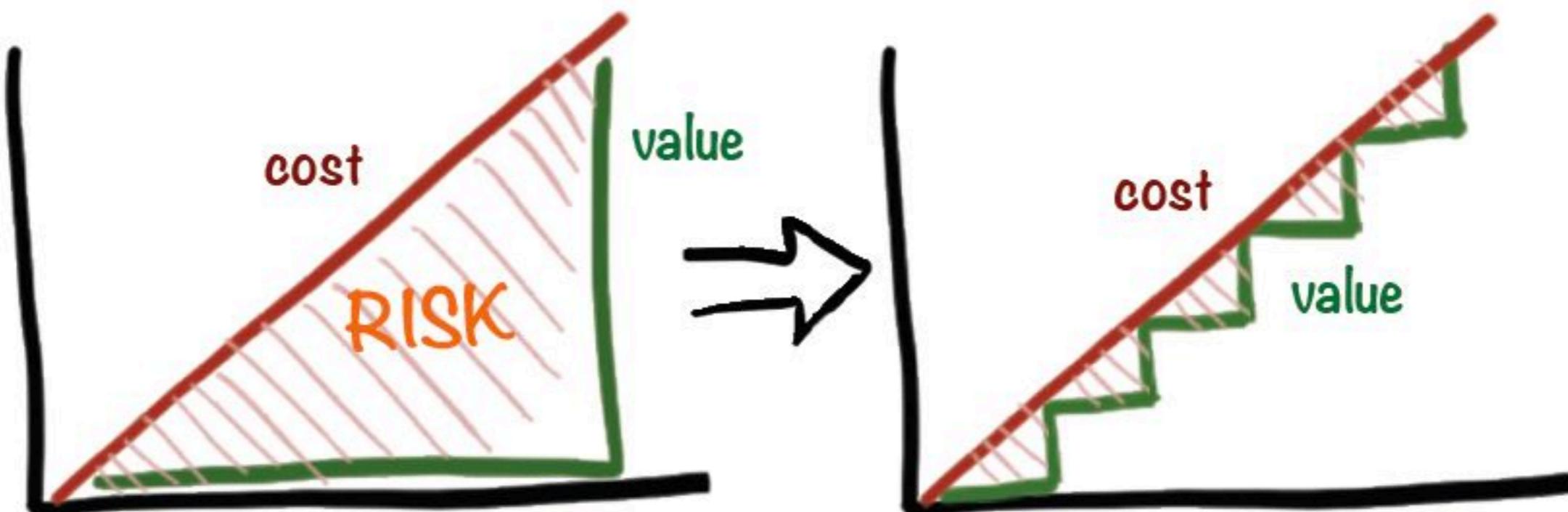
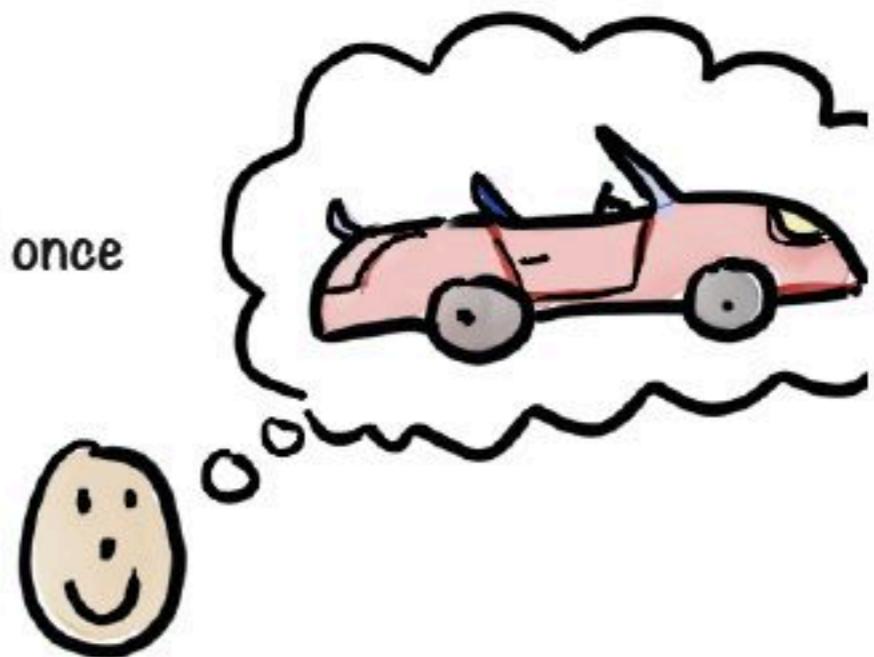
Don't build risk
Build up value



Agile = Iterative + Incremental

Don't try to get it all right
from the beginning

Don't build it all at once



Henrik Kniberg

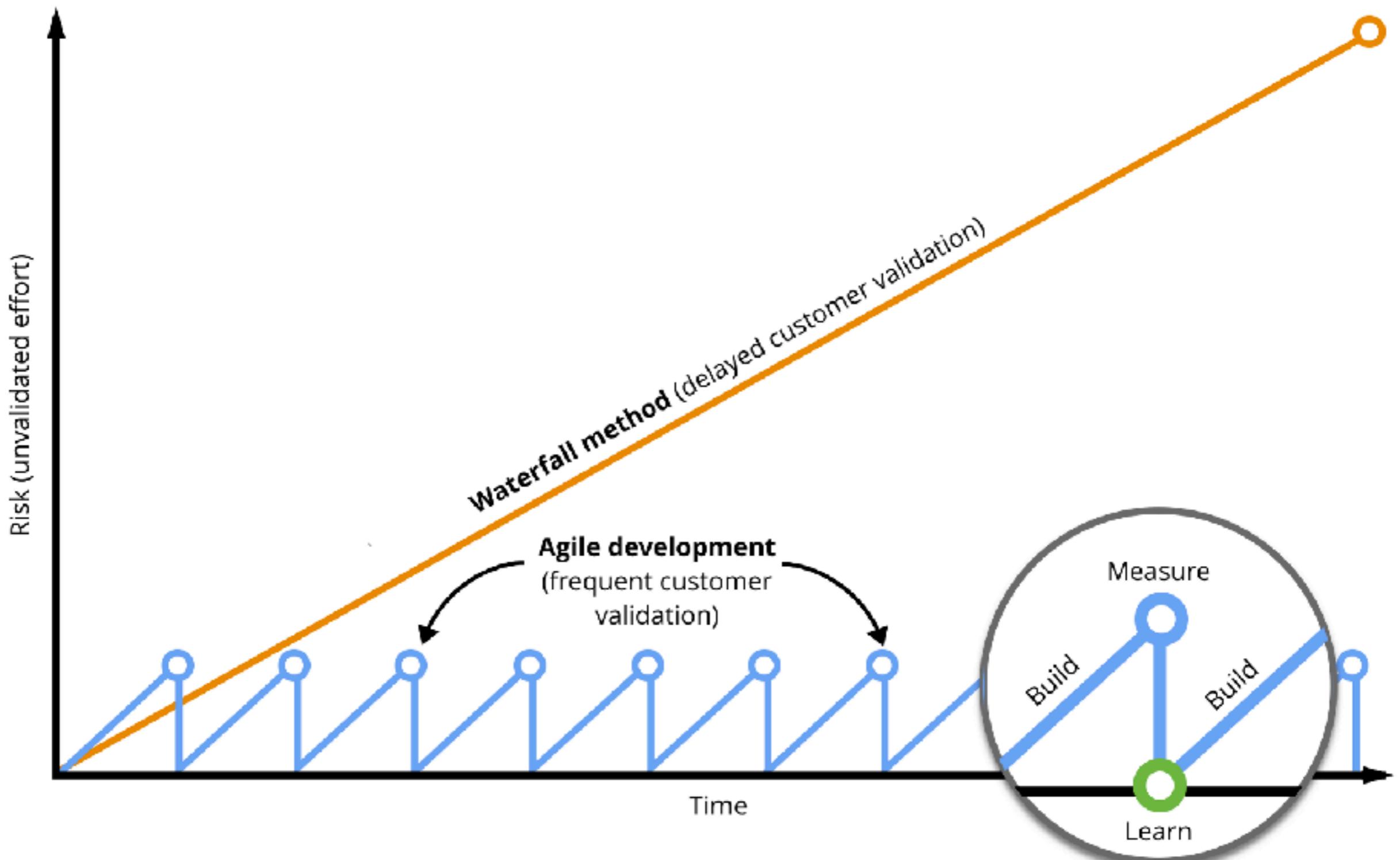


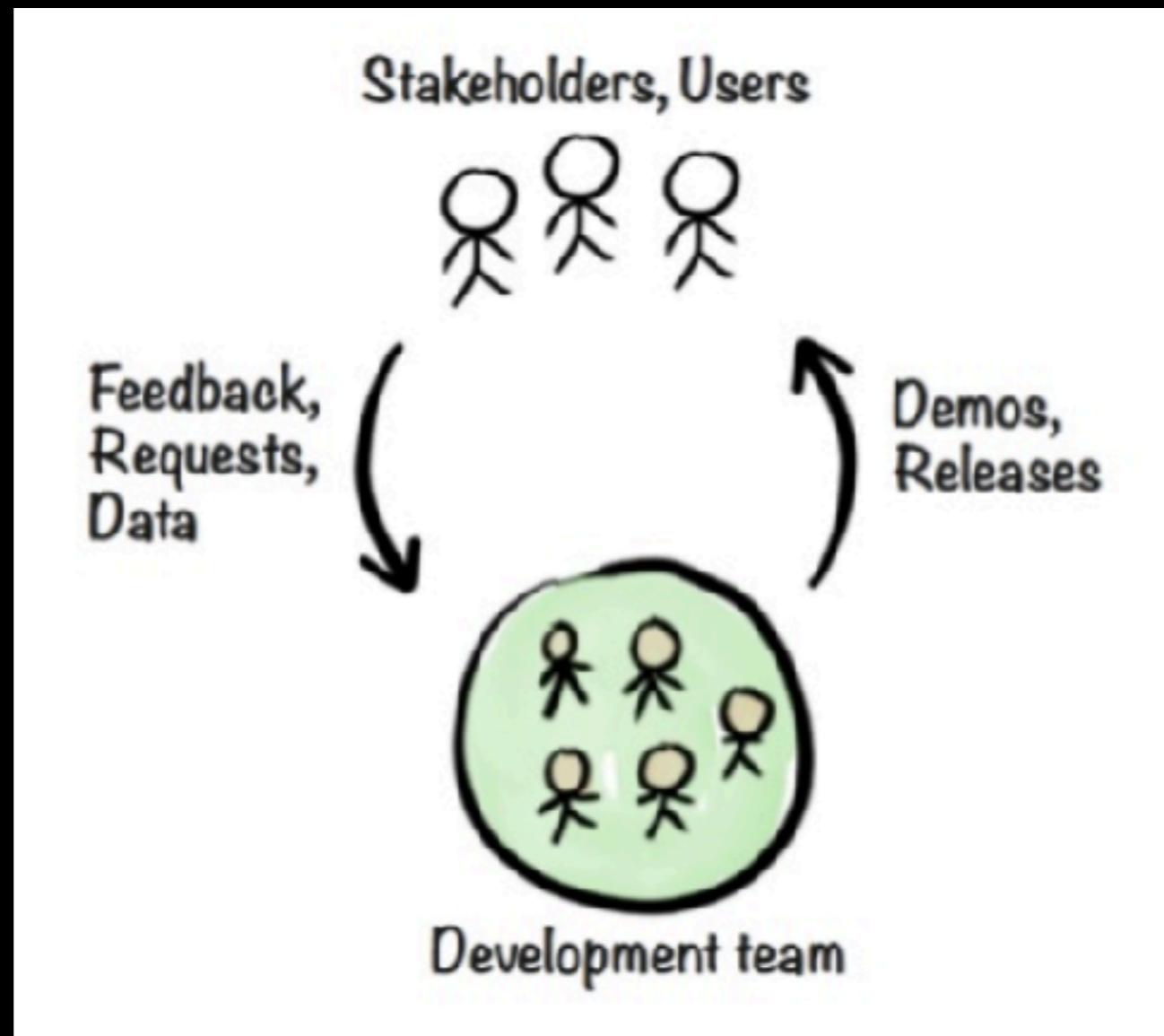
Build Measure Learn



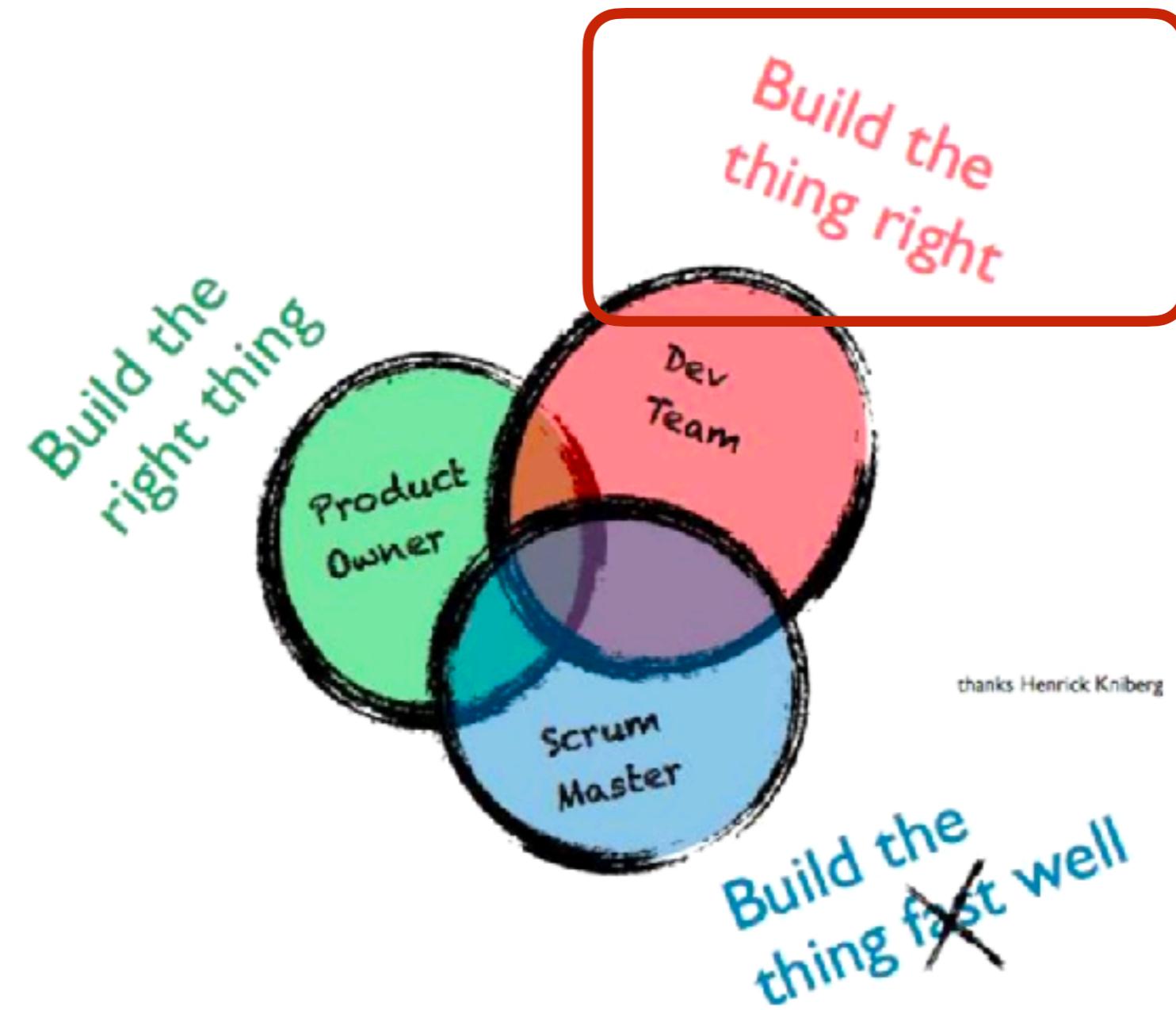
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Building with care and quality



Software craftsmanship





As aspiring Software Craftsmen we are raising the bar of professional software development by practicing it and helping others learn the craft. Through this work we have come to value:

Not only working software,
but also **well-crafted software**

Not only responding to change,
but also **steadily adding value**

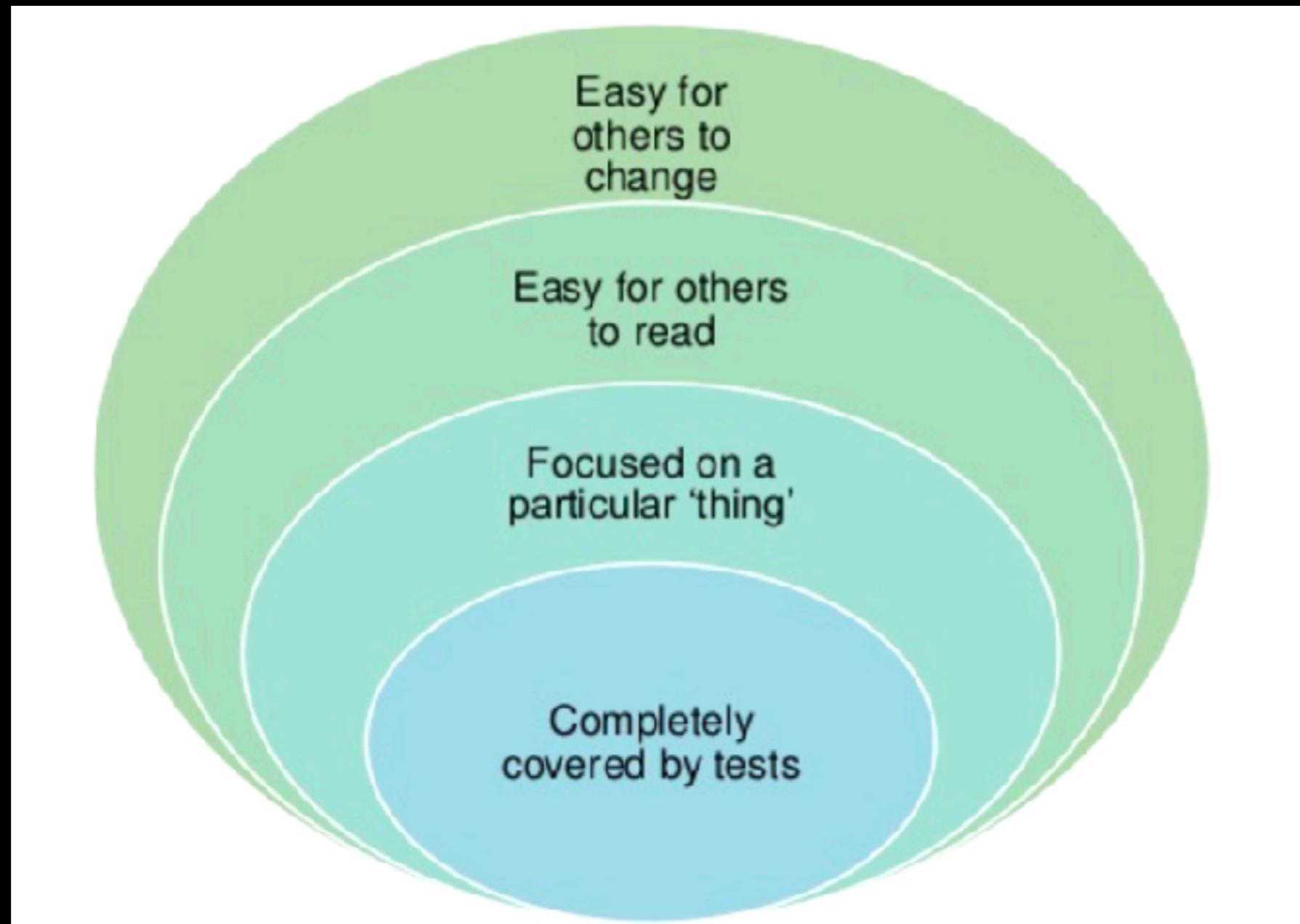
Not only individuals and interactions,
but also **a community of professionals**

Not only customer collaboration,
but also **productive partnerships**



Clean your code





```

function register()
{
    if (!empty($_POST)) {
        $msg = '';
        if ($_POST['user_name']) {
            if ($_POST['user_password_new']) {
                if ($_POST['user_password_new'] === $_POST['user_password_repeat']) {
                    if (strlen($_POST['user_password_new']) > 5) {
                        if (strlen($_POST['user_name']) < 65 && strlen($_POST['user_name']) > 1) {
                            if (preg_match('/^(a-zA-Z)(2,64)$/i', $_POST['user_name'])) {
                                $user = read_user($_POST['user_name']);
                                if (!isset($user['user_name'])) {
                                    if ($_POST['user_email']) {
                                        if (strlen($_POST['user_email']) < 65) {
                                            if (filter_var($_POST['user_email'], FILTER_VALIDATE_EMAIL)) {
                                                create_user();
                                                $_SESSION['msg'] = 'You are now registered so please login';
                                                header('Location: ' . $_SERVER['PHP_SELF']);
                                                exit();
                                            } else $msg = 'You must provide a valid email address';
                                        } else $msg = 'Email must be less than 64 characters';
                                    } else $msg = 'Email cannot be empty';
                                } else $msg = 'Username already exists';
                            } else $msg = 'Username must be only a-z, A-Z, 0-9';
                        } else $msg = 'Username must be between 2 and 64 characters';
                    } else $msg = 'Password must be at least 6 characters';
                } else $msg = 'Passwords do not match';
            } else $msg = 'Empty Password';
        } else $msg = 'Empty Username';
        $_SESSION['msg'] = $msg;
    }
    return register_form();
}

```

pixdeanu



What to do ?



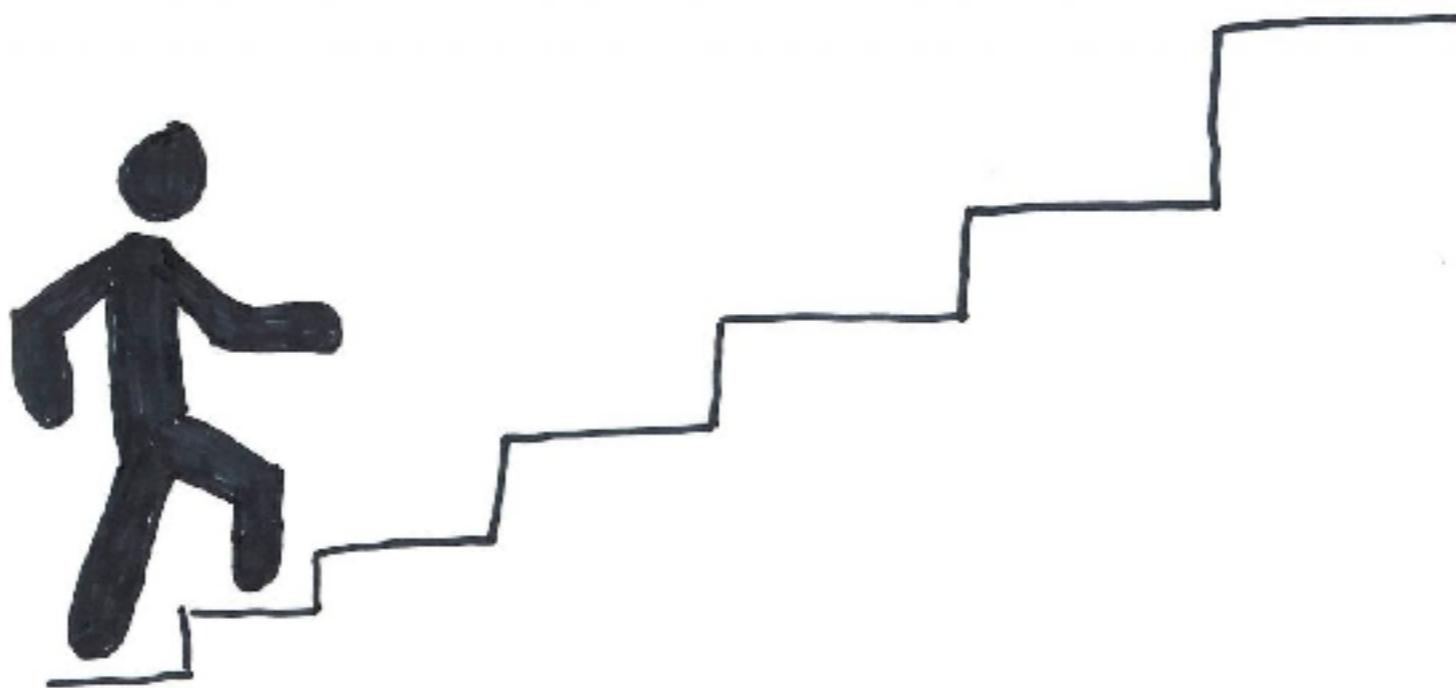
1. Find out where you are

problems ?



2. Take a small step to your goal in time box

"ONE SMALL STEP"



**3. Adjust your understand
based on
what you learn and do**



4. Repeat





DAILY DISCIPLINE
It doesn't matter how slow you go so long as you do not stop.

Long term viability requires Discipline



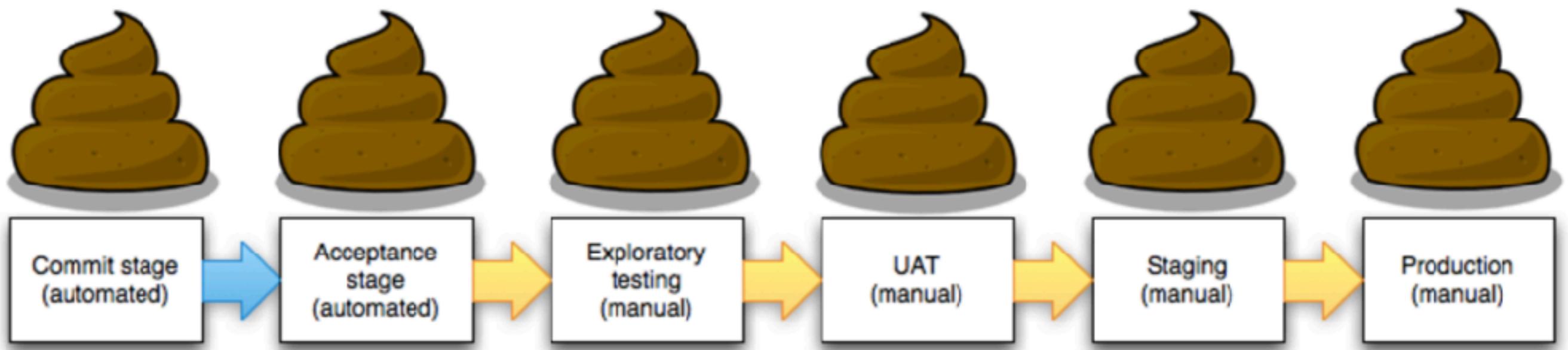
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Problems in software development







Questioning

Learning

Refining

Sharing

A gility

Doing

Narrating

Editing

Mistakes

“ Early Delivery of BUSINESS VALUE ”



“ With Technical Excellence “





SPECIFICATION BY EXAMPLE



CONTINUOUS
INTEGRATION



CONTINUOUS DELIVERY



TEST AUTOMATION



THINKING ABOUT TESTING



TECHNICAL
EXCELLENCE



TEST-DRIVEN DEVELOPMENT



ARCHITECTURE
& DESIGN



ACCEPTANCE
TESTING



CLEAN CODE



UNIT TESTING



<http://less.works>

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Focus on **value** of practice



Continuous Integration reveals so many problems



Continuous Delivery **reveals** so many problems



Continuous Improvement



Technical excellence is measured by both capacity to deliver customer value today and create an adaptable product for tomorrow

Jim Highsmith



WE ARE
what we
REPEATEDLY
~~~~~ do ~~~~~  
**{ EXCELLENCE }**  
then  
**IS NOT AN ACT**  
— *but a* —  
**HABIT**  
*Aristotle*



Continuous attention to technical excellence and good design enhances agility.

Simplicity--the art of maximizing the amount of work not done--is essential.

The best architectures, requirements, and designs emerge from self-organizing teams.

At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly.



# Required Quality !!



# Your Quality ?

| Internal Quality<br>(Developer facing) | External Quality<br>(Customer facing) | Advice                           |
|----------------------------------------|---------------------------------------|----------------------------------|
| High                                   | High                                  | Good                             |
| High                                   | Low                                   | Get customer focused             |
| Low                                    | High                                  | It's won't last,<br>Refactor now |
| Low                                    | Low                                   | Refactor vs Rewrite ?            |



# Technical Debt



# How Technical Debt occur ?

| IT “done” | Business<br>“Accept” | Result                |
|-----------|----------------------|-----------------------|
| Yes       | Yes                  | Good                  |
| Yes       | No                   | Communication problem |
| No        | Yes                  | Technical Debt        |
| No        | No                   | uhh !!                |



# How Technical Debt occur ?

Complex requirements

Over engineering

Ignorance

Undone work

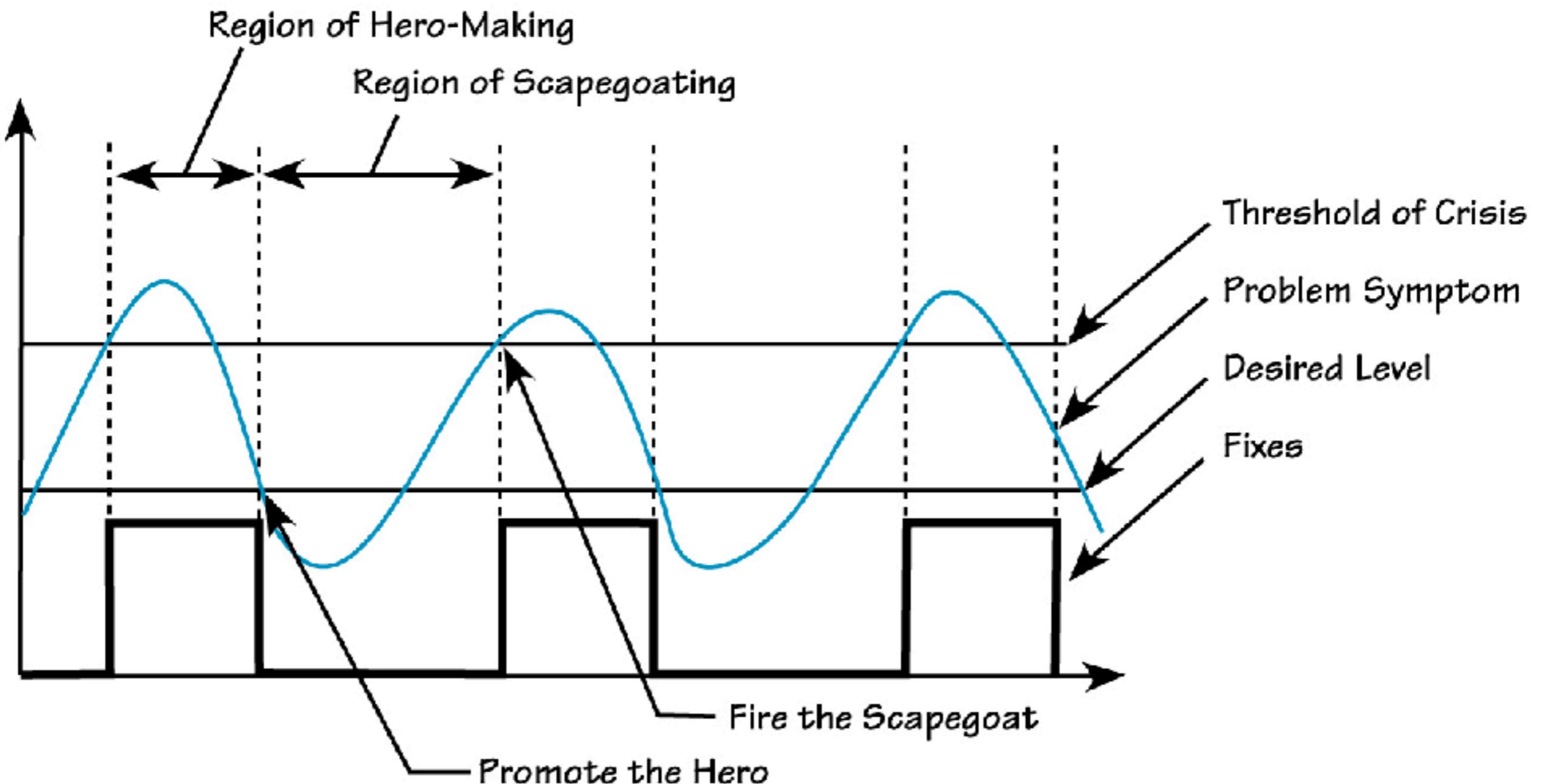
Cutting corner => Quick and dirty



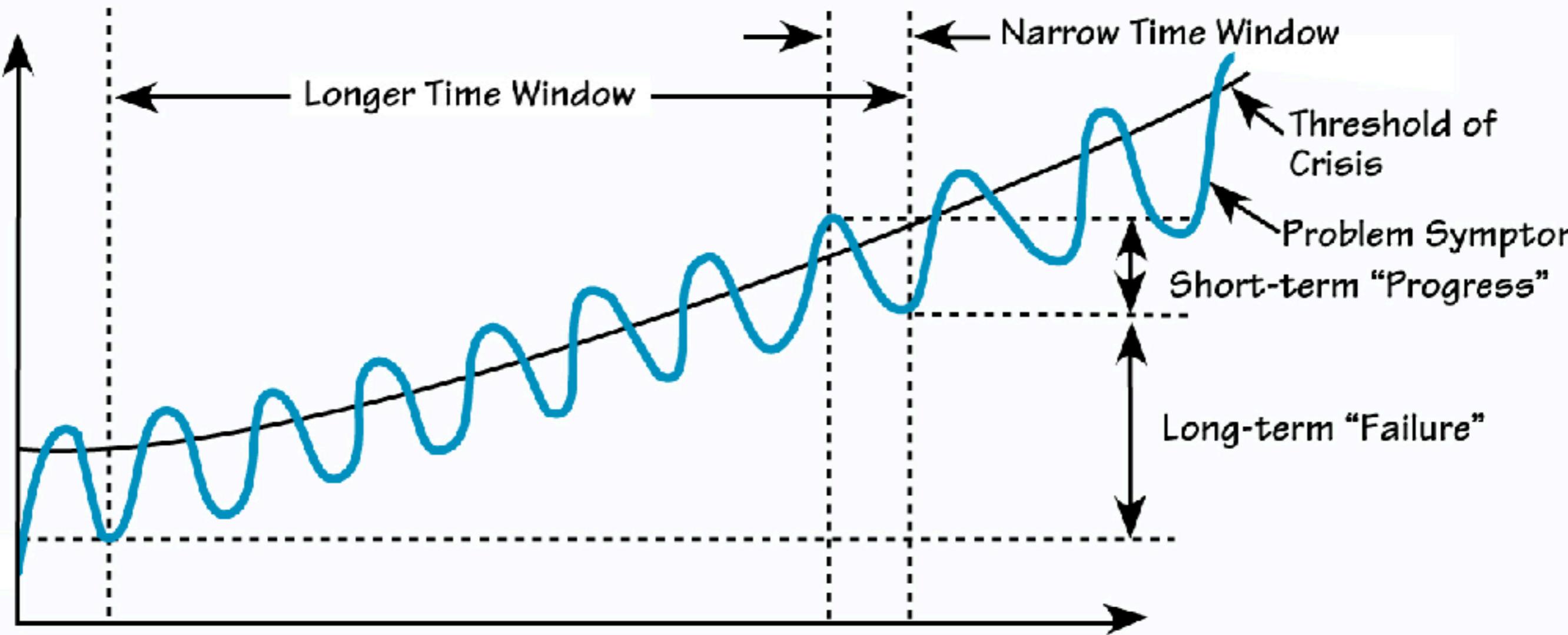
# Faster is Slower !!



# The hero-scapegoat cycle



# Win today, Lose tomorrow



# The business made me do it !



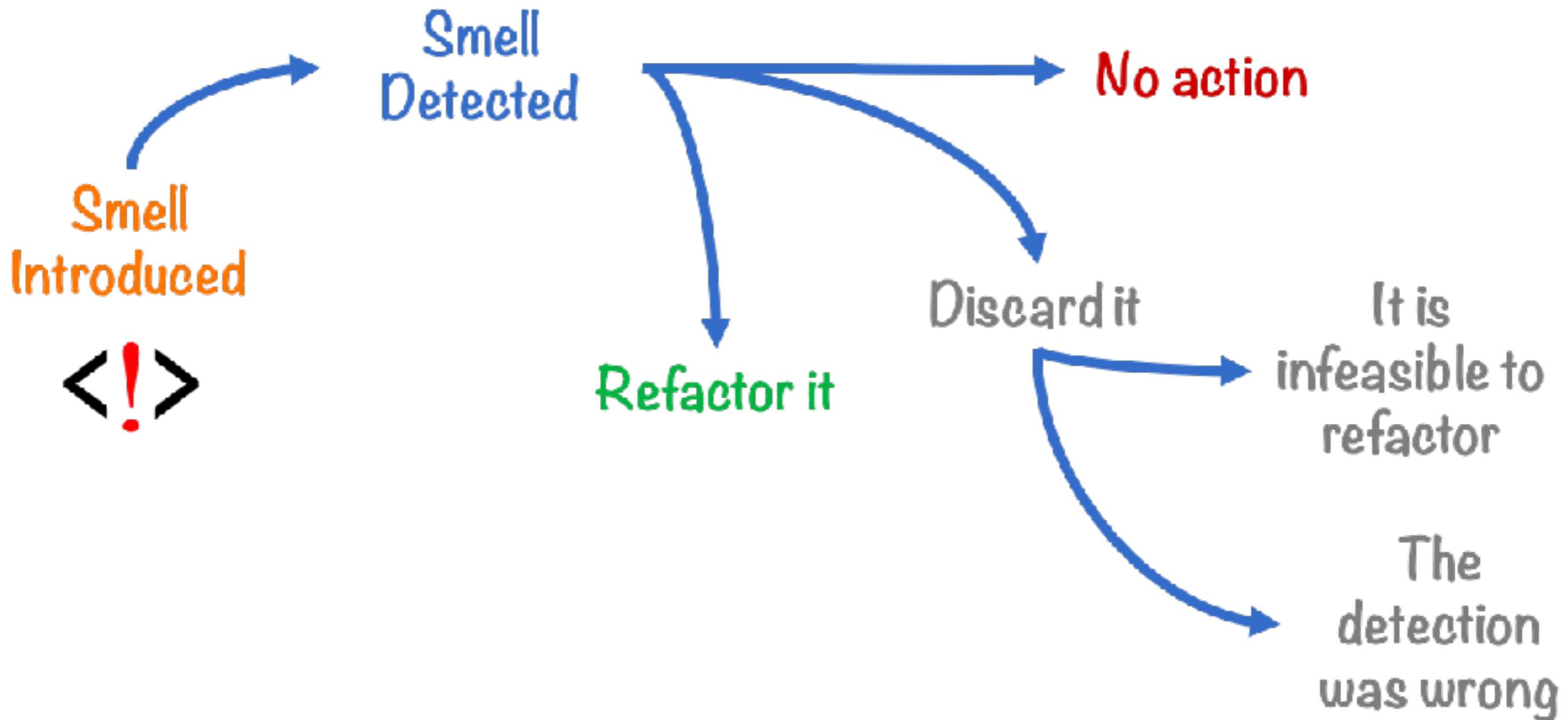
# Deadline Driven Development



# Later == Never !!



# Decision ?



# **Why we try ?**

# **Technical excellence**





SPECIFICATION BY EXAMPLE



CONTINUOUS  
INTEGRATION



CONTINUOUS DELIVERY



TEST AUTOMATION



THINKING ABOUT TESTING



TECHNICAL  
EXCELLENCE



TEST-DRIVEN DEVELOPMENT



ARCHITECTURE  
& DESIGN



ACCEPTANCE  
TESTING



CLEAN CODE



UNIT TESTING



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**Quality is important**  
**Focus on it every day**



**Testing is good**  
**Test all the time**



**Review is good**  
**Review all the time**



**Customer input is good**

**Talk to your customer every day**



# **Planning is important**

## **Keep the plan alive, plan to replan**





AND  
LAST  
BUT  
NOT  
LEAST

[KeepCalmAndPosters.com](http://KeepCalmAndPosters.com)

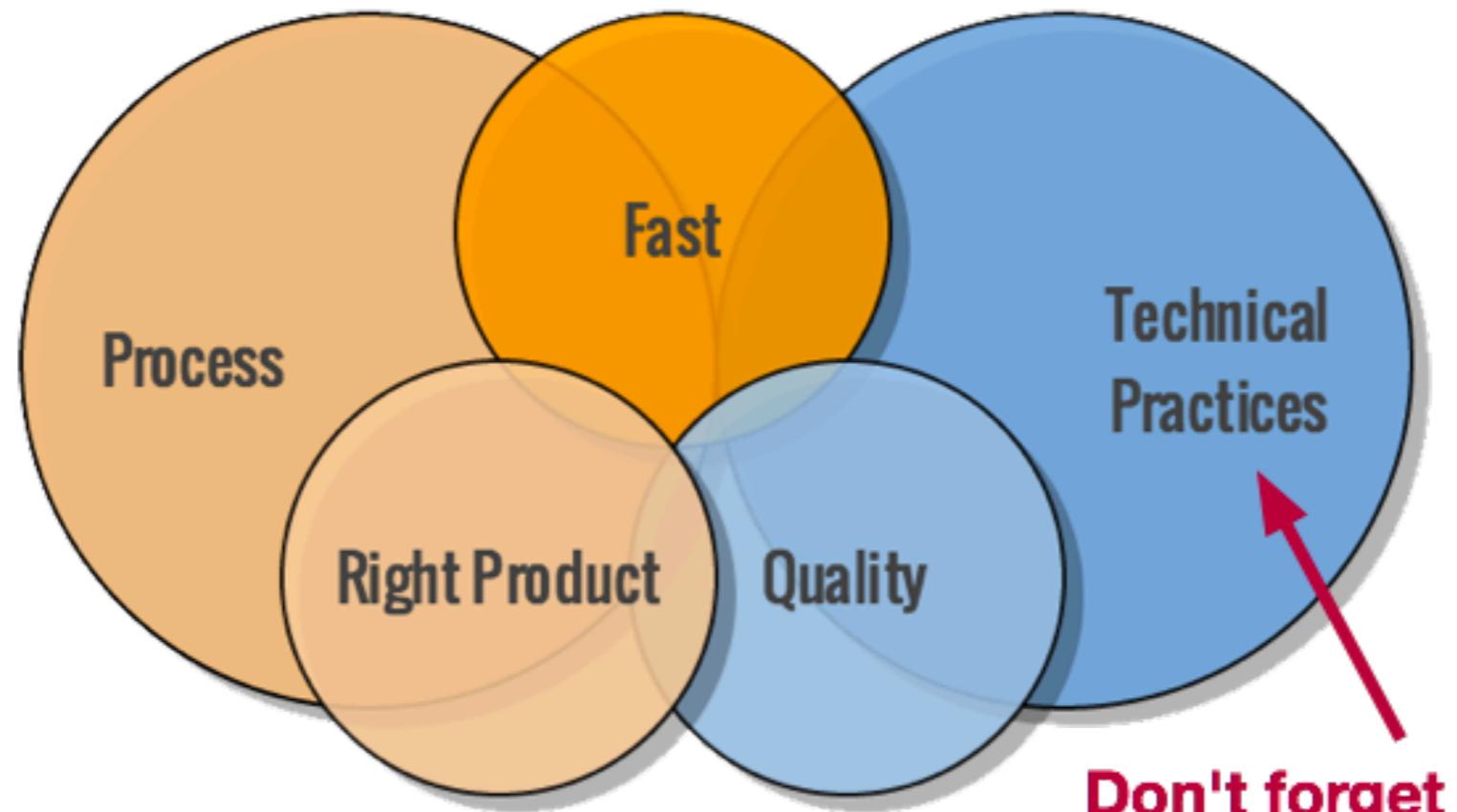


# Invest in your people

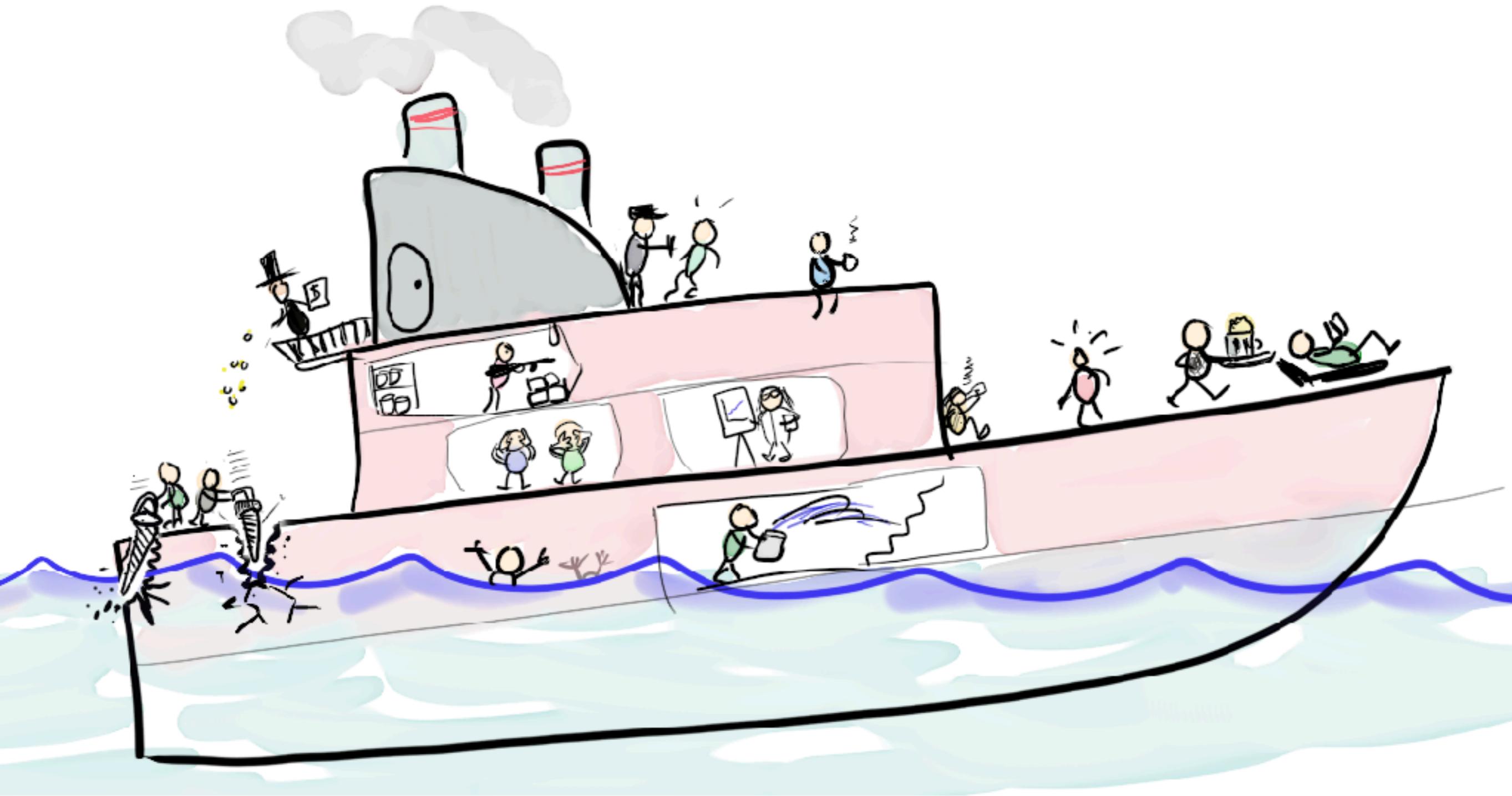


# Create a safe environment









# Q/A

