Behaviour-Driven Development (With Cynefin!)

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BDD

uses examples

to illustrate behavior

An Example of an Example

Given Fred has bought a microwave

And the microwave cost £100

When we refund the microwave

Then Fred *should* be refunded £100.

Examples

Given a context

When an event happens

Then an outcome *should* occur

Cucumber

```
Feature: Addition
  In order to avoid silly mistakes
  As a math idiot
  I want to be told the sum of two numbers
  Scenario: Add two numbers
    Given I have entered 50 into the calculator
    And I have entered 70 into the calculator
    When I add the numbers together
    Then the result should be 120 on the screen
```

This is what most people associate with BDD

Having conversations

is more important than
capturing conversations

is more important than
automating conversations

Examples

Given a context

When an event happens

Then an outcome *should* occur

Should it?

~~Make sure you get it right~~

Assume you got it wrong

Is there a context in which
this event will create
a different outcome?

Examples

Given Fred has bought a microwave

And the microwave cost £100

And the microwave was on 10% discount

When we refund the microwave

Then Fred *should* be refunded £90.

Is this the only outcome
that matters?
If we could achieve it with pixies,
would it be enough?

Examples

Given Fred has bought a microwave

And the microwave cost £100

When we refund the microwave

Then the microwave should be added to the stock count.

Acceptance criteria vs. Scenarios

Given Fred has bought a microwave

And the microwave cost £100

And the microwave was on 10% discount

When we refund the microwave

Then Fred *should* be refunded £90.

Acceptance criteria vs. Scenarios

Given an item was sold
with a discount
When a customer gets a refund
Then he should only be refunded
the discounted price.

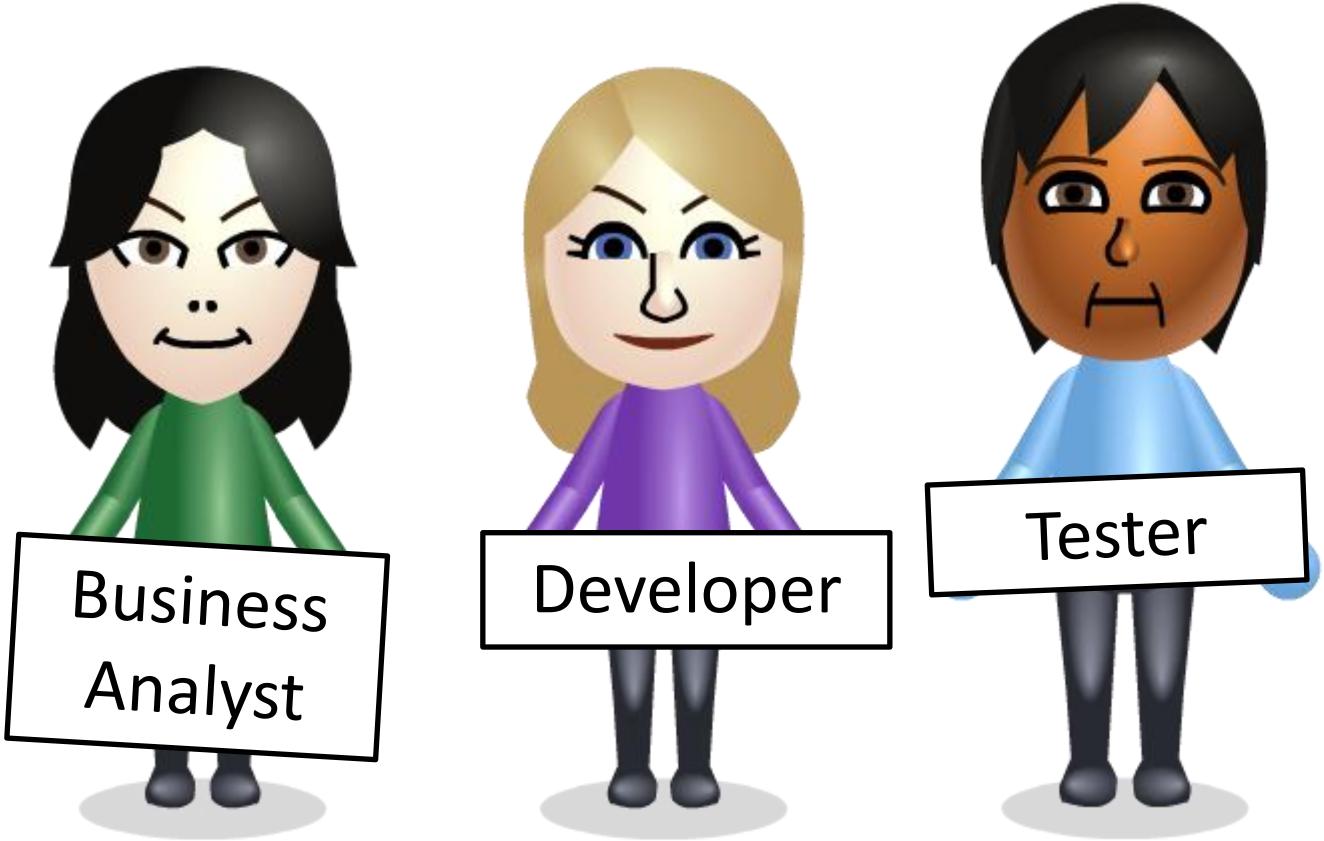
Acceptance criteria vs. Scenarios

Items should be refunded
at the price at which they were sold.

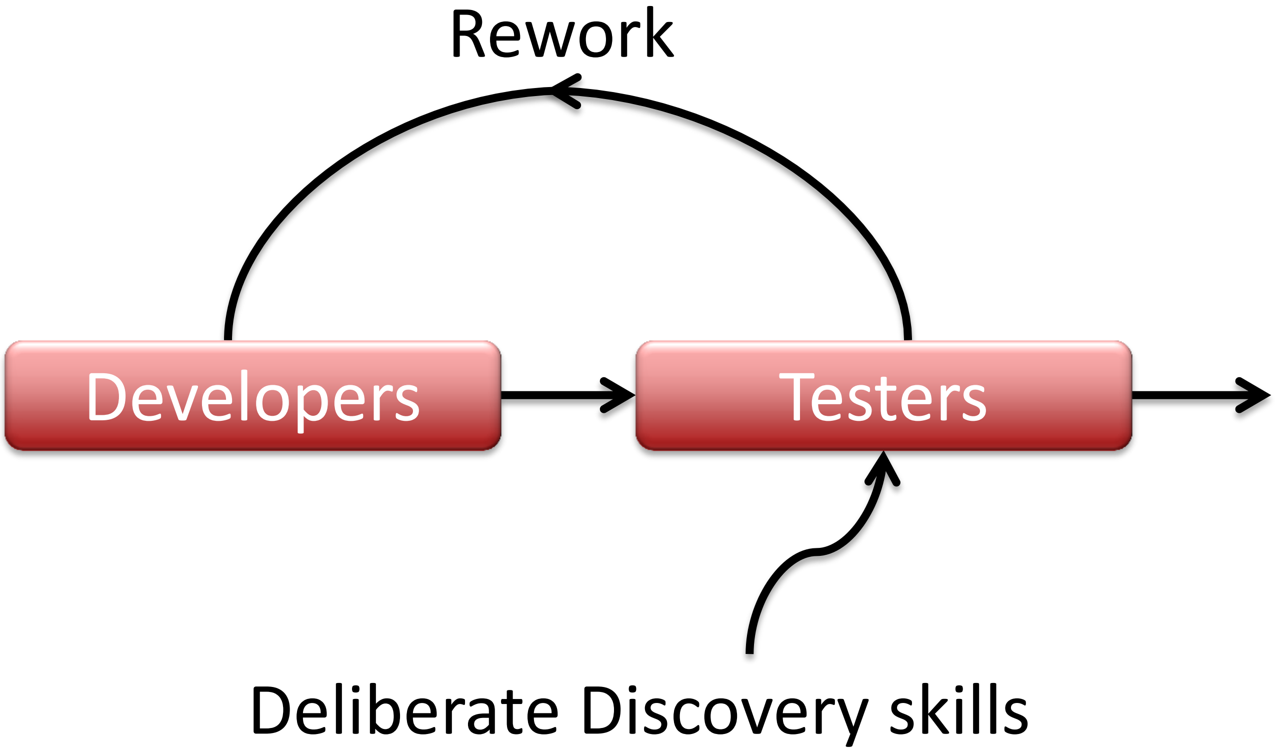
Who should

write

the scenarios down?


Business Analyst
Developer
Tester

Traditional



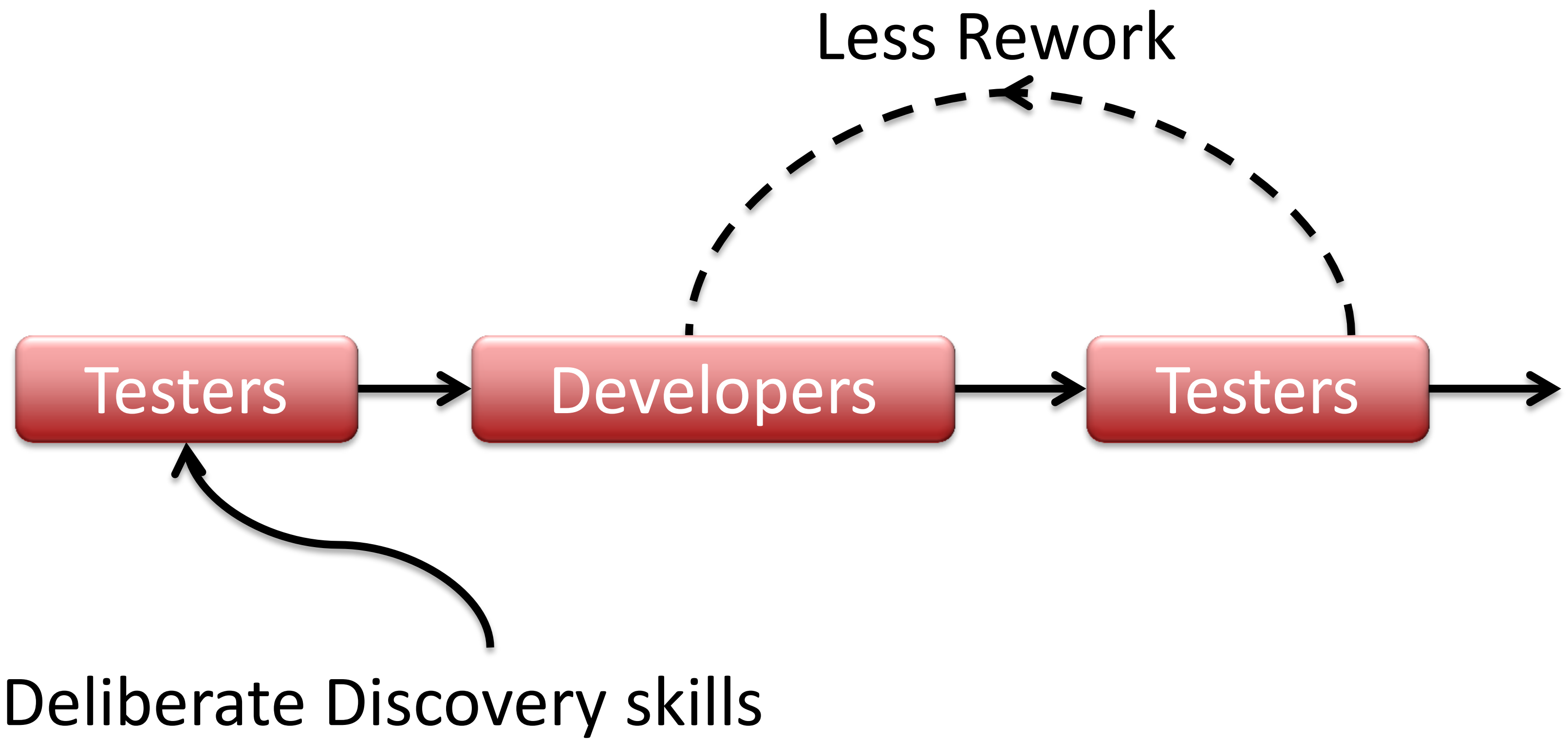
Rework

Developers

Testers

Deliberate Discovery skills

BDD



Less Rework

Testers

Developers

Testers

Deliberate Discovery skills

Cynefin and Differentiation

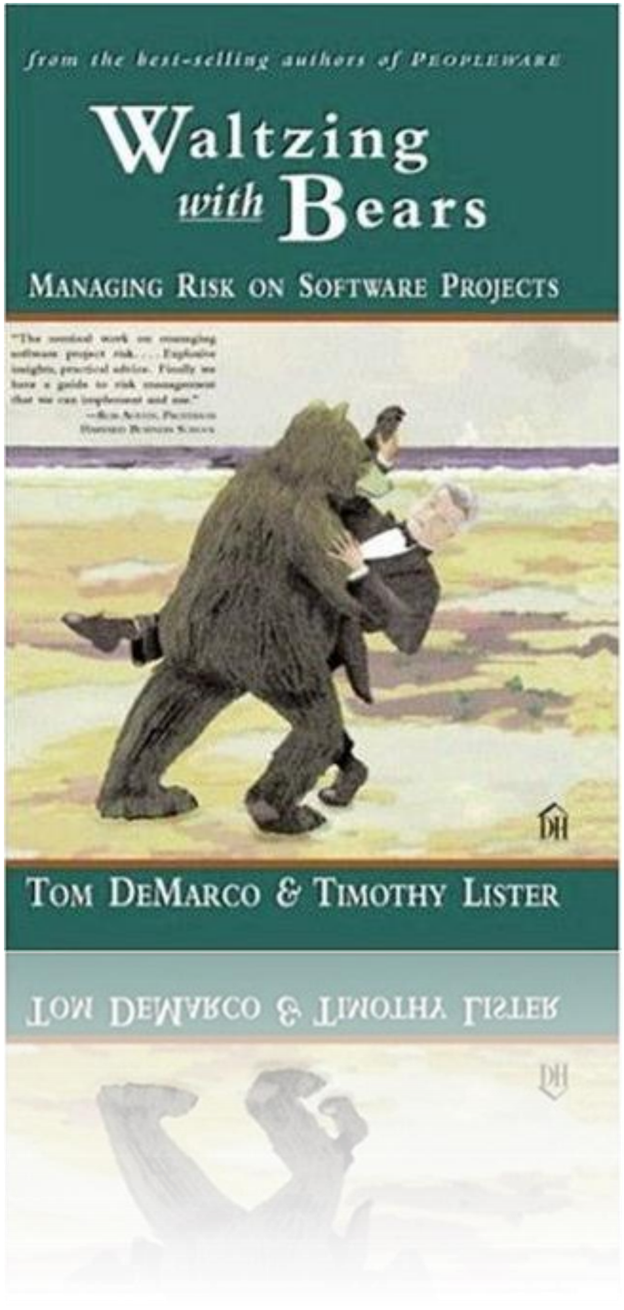
Kuh-nev-vin

Other ways of asking “Why”?

What will be
different?

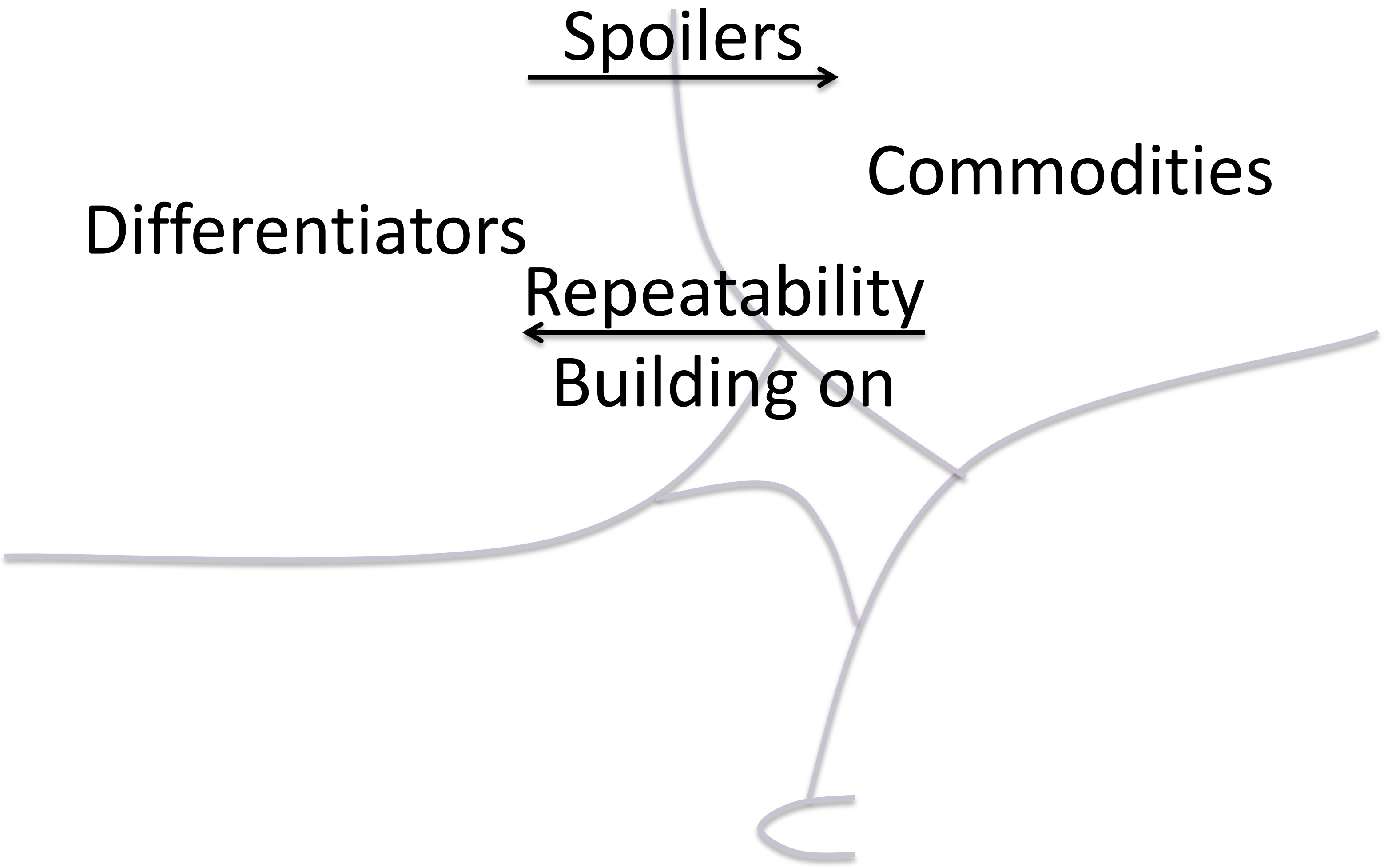
What will that get for you
that you
don’t already have?

What will you, or the users, or the system,
be able to do
that you can’t do already?


from the best-selling authors of PEOPLEWARE
Waltzing with Bears
MANAGING RISK ON SOFTWARE PROJECTS
"The seminal work on managing software project risk. . . . Explosive insights, practical advice. Finally we have a guide to risk management that we can implement and use."
—Rob Austin, Professor
Harvard Business School
DH
TOM DEMARCO & TIMOTHY LISTER

If a project has
no risks,
don't do it.

The Innovation Cycle



Spoilers

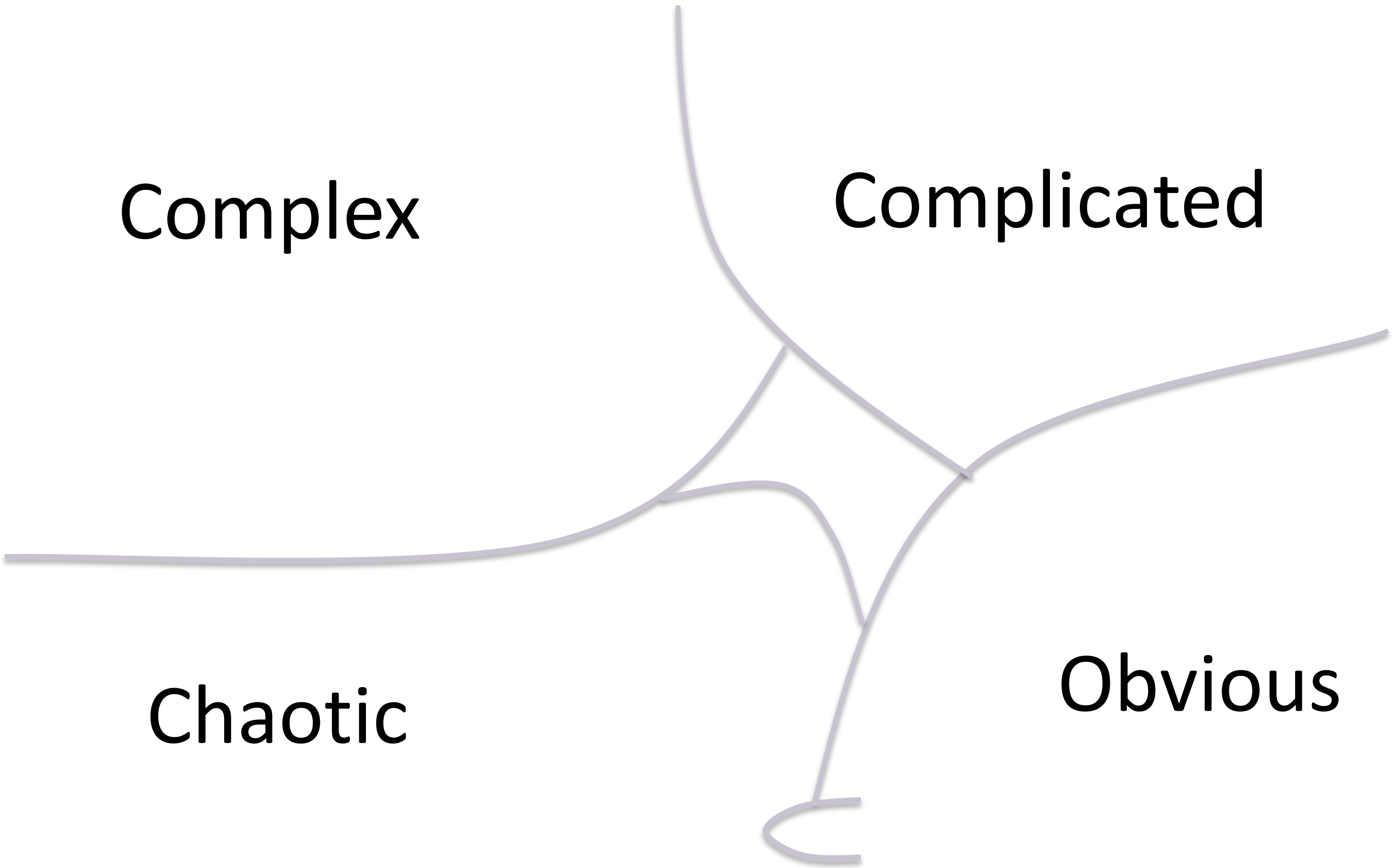
Commodities

Differentiators

Repeatability

Building on

Cynefin



Complex

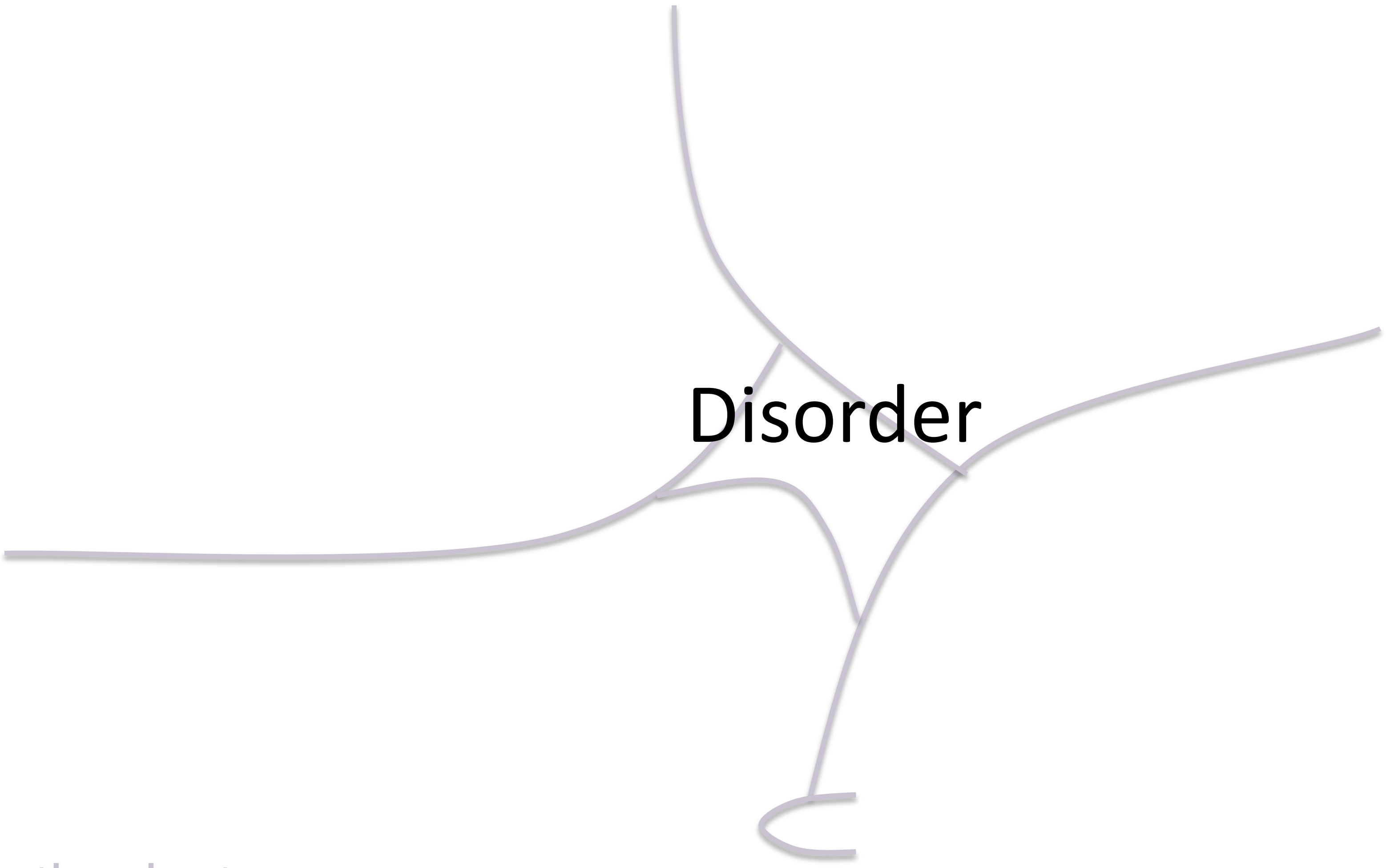
Complicated

Chaotic

Obvious

With thanks to
David Snowden and Cognitive Edge

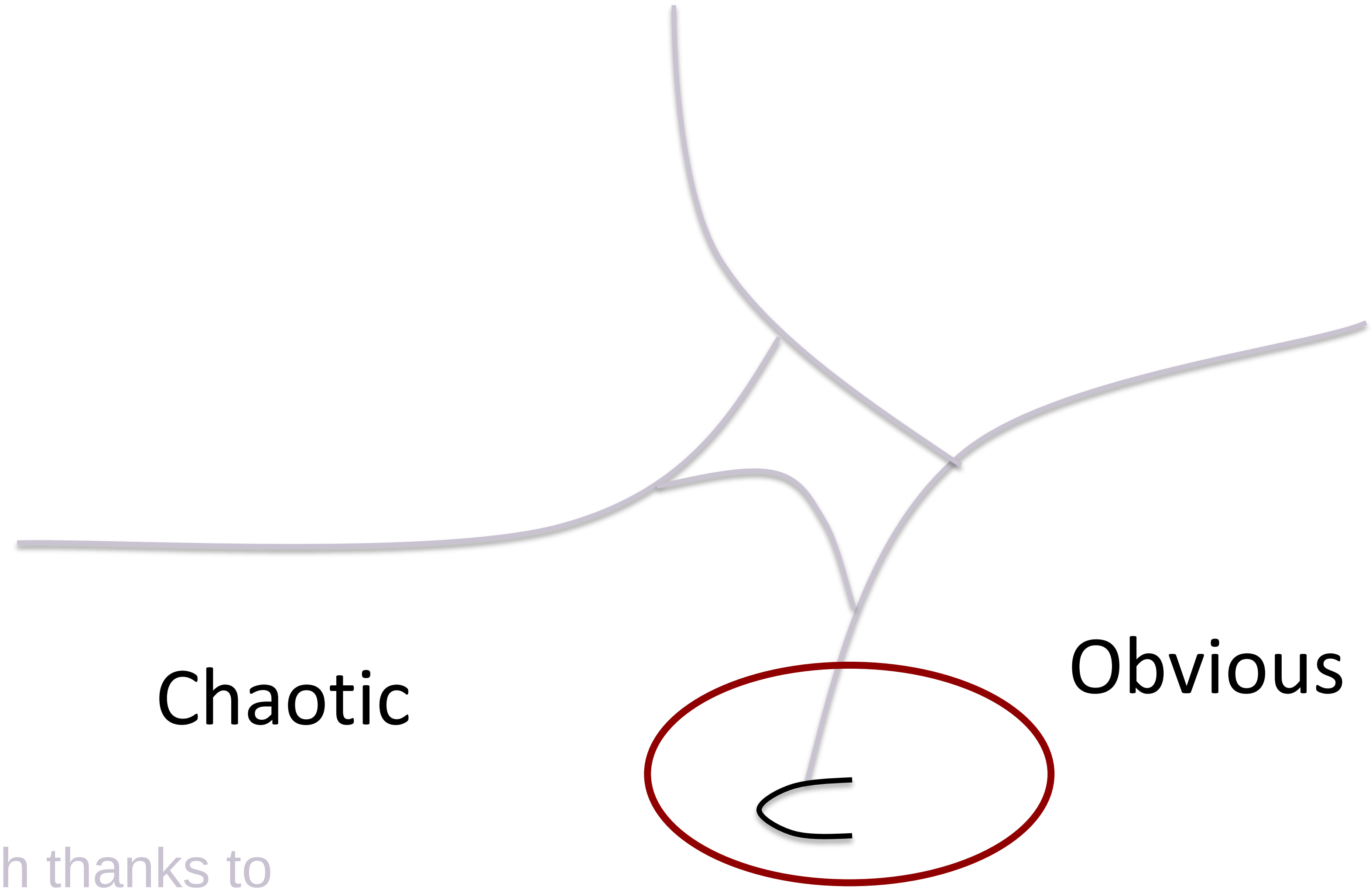
Cynefin



Disorder

With thanks to
David Snowden and Cognitive Edge

Cynefin



Chaotic

Obvious

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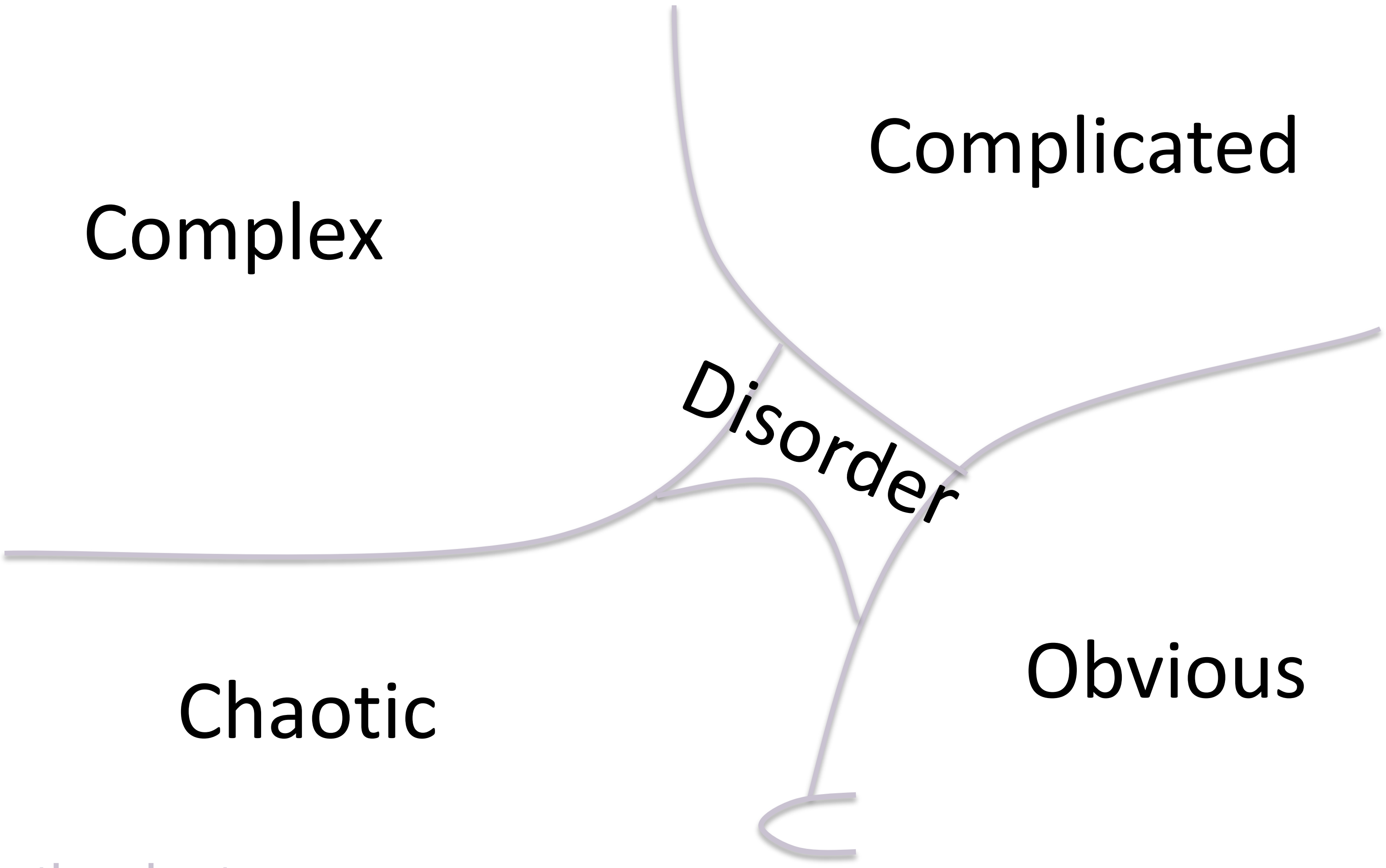
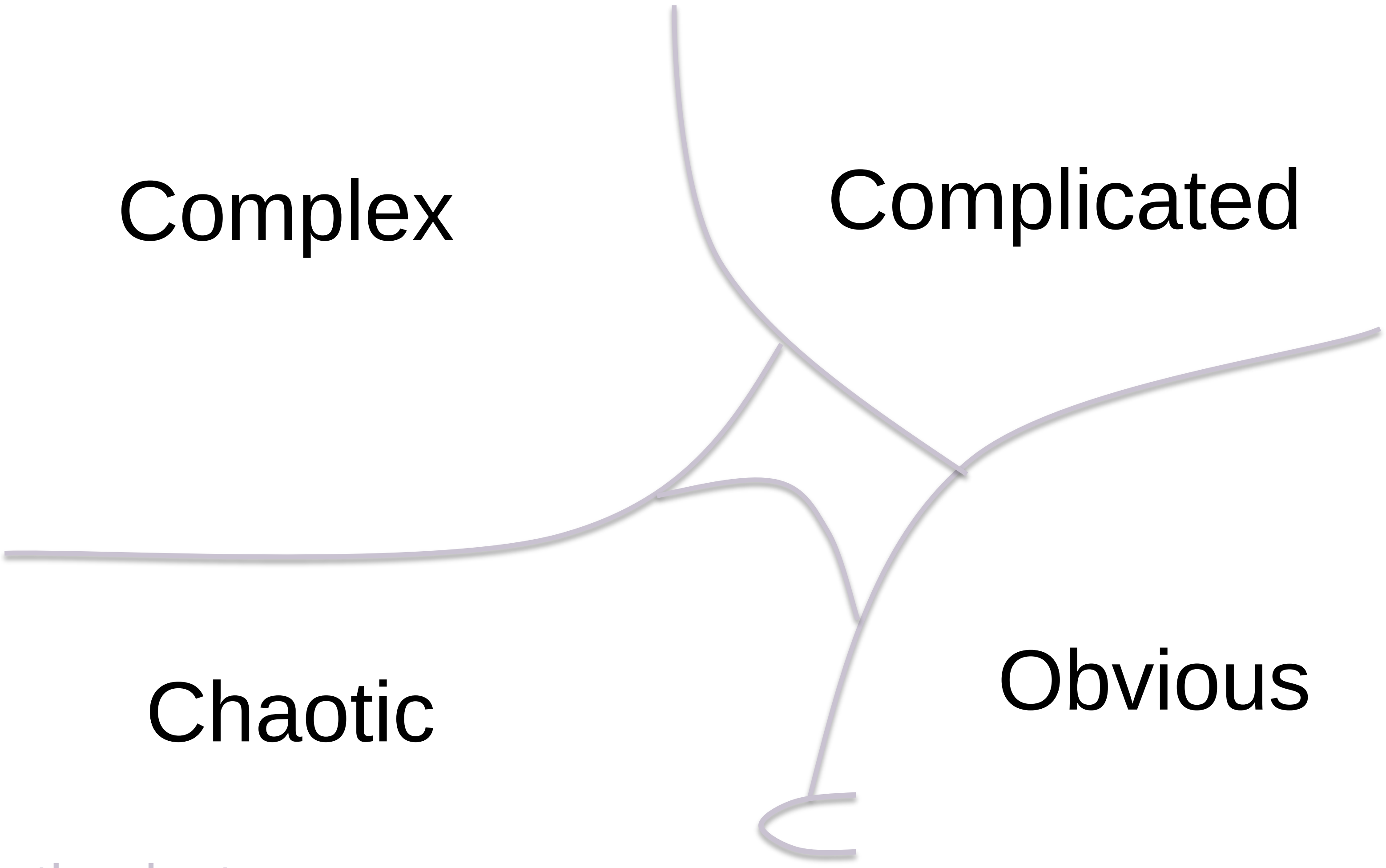


With thanks to
David Snowden and Cognitive Edge

Differentiators

Probe
(try something
out)

Cynefin



Complex

Complicated

Chaotic

Obvious

With thanks to
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Estimating Complexity

5. Nobody has ever done it before

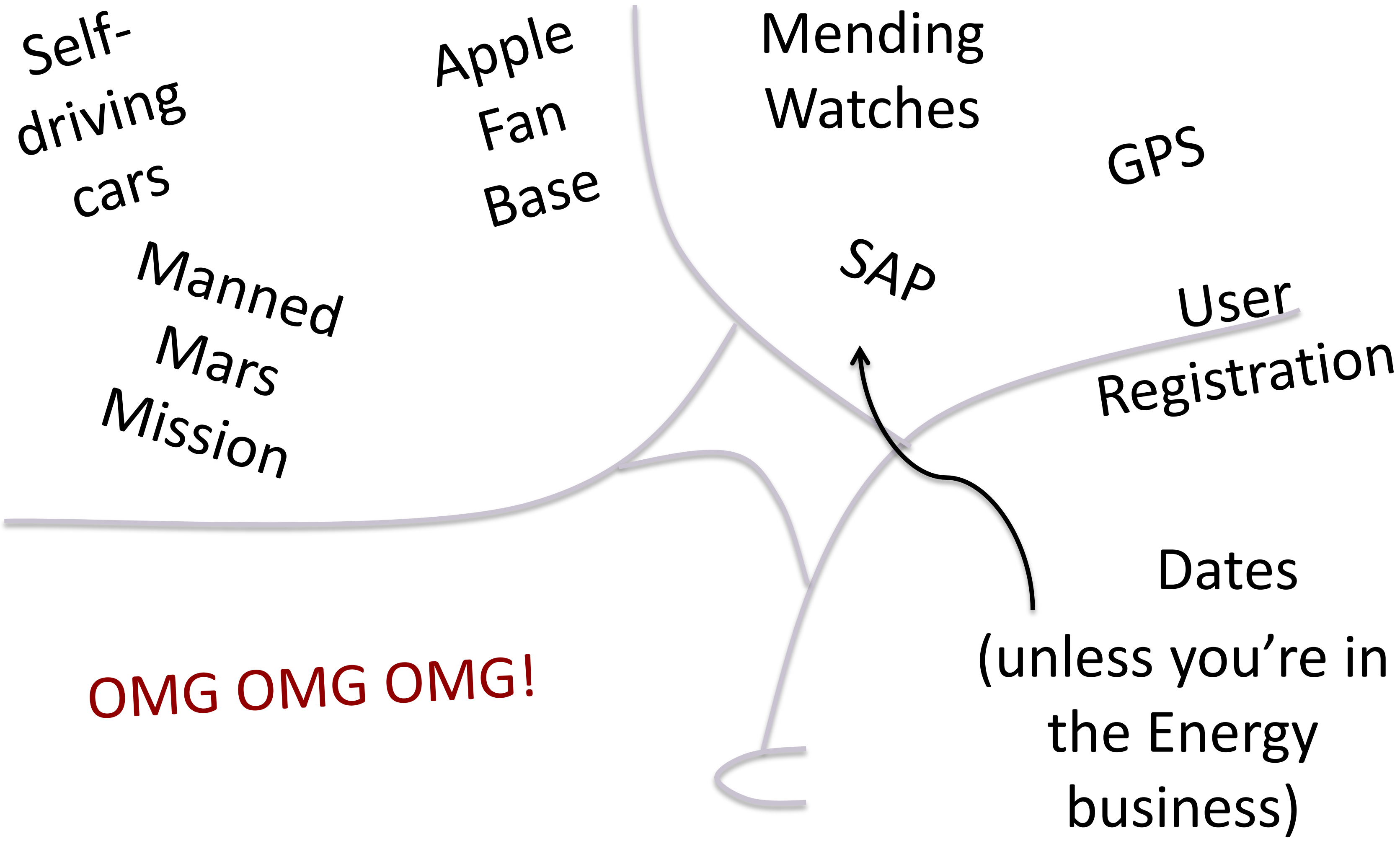
4. Someone outside the org has done it before (probably a competitor)

3. Someone in the company has done it before

2. Someone in the team has done it before

1. We all know how to do it.

Estimating Complexity



Self-driving cars

Apple Fan Base

Manned Mars Mission

Mending Watches

GPS

SAP

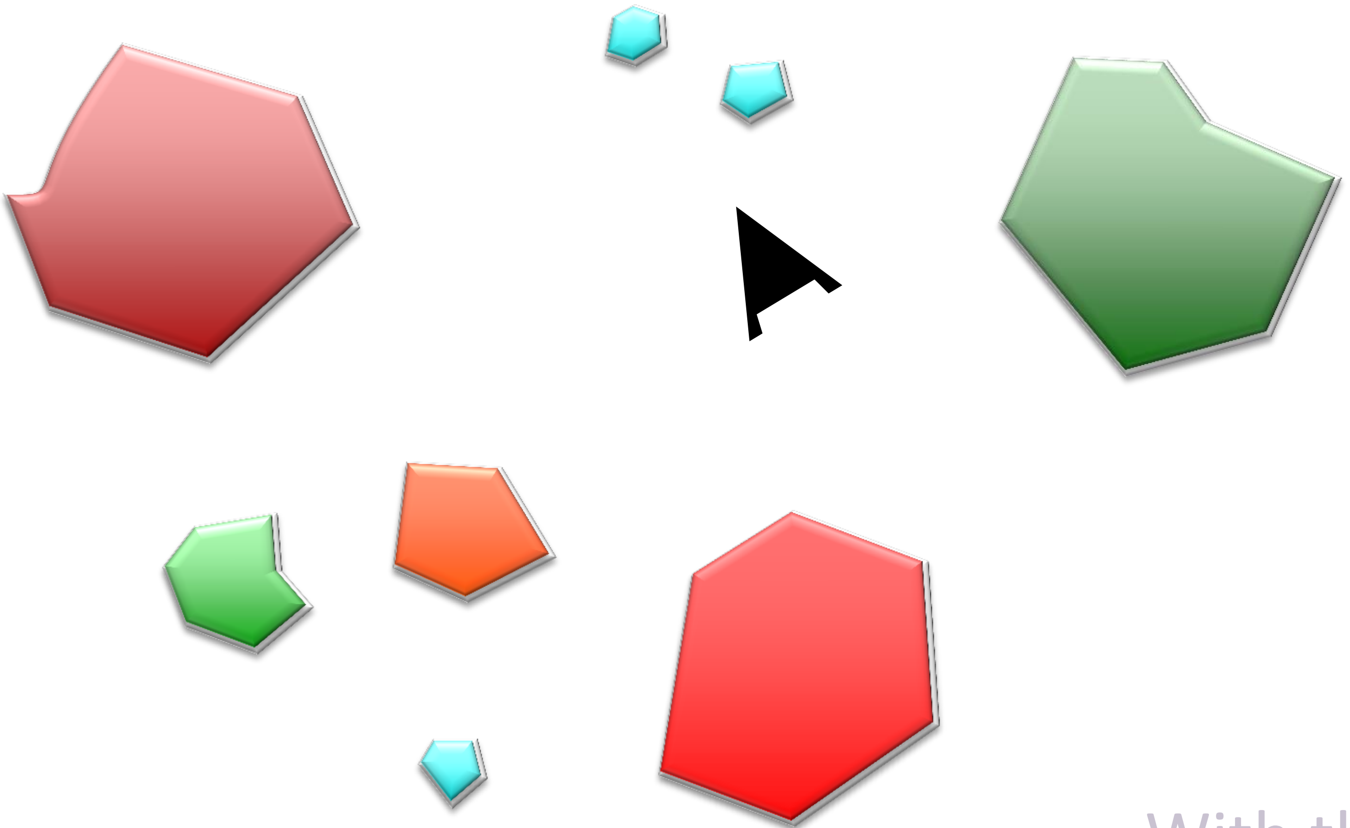
User Registration

OMG OMG OMG!

Dates

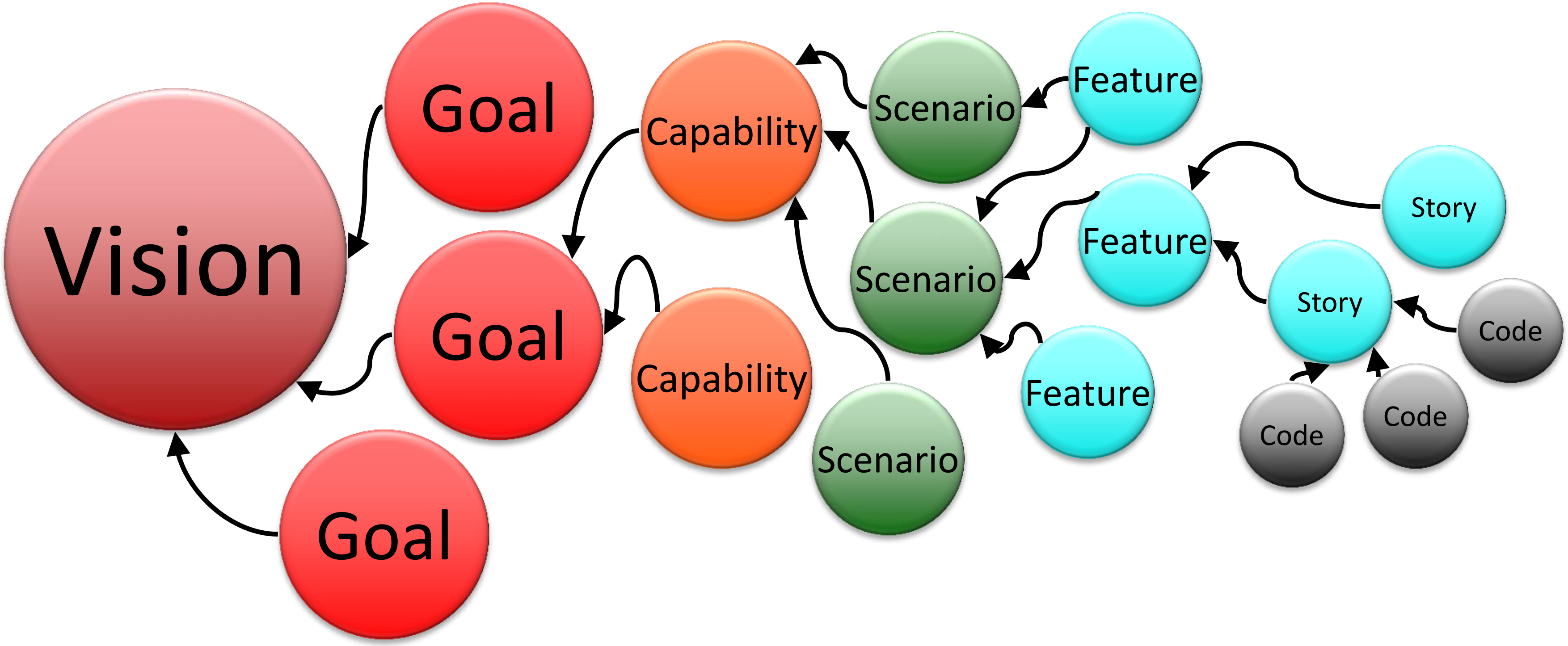
(unless you’re in the Energy business)

Breaking Things Down

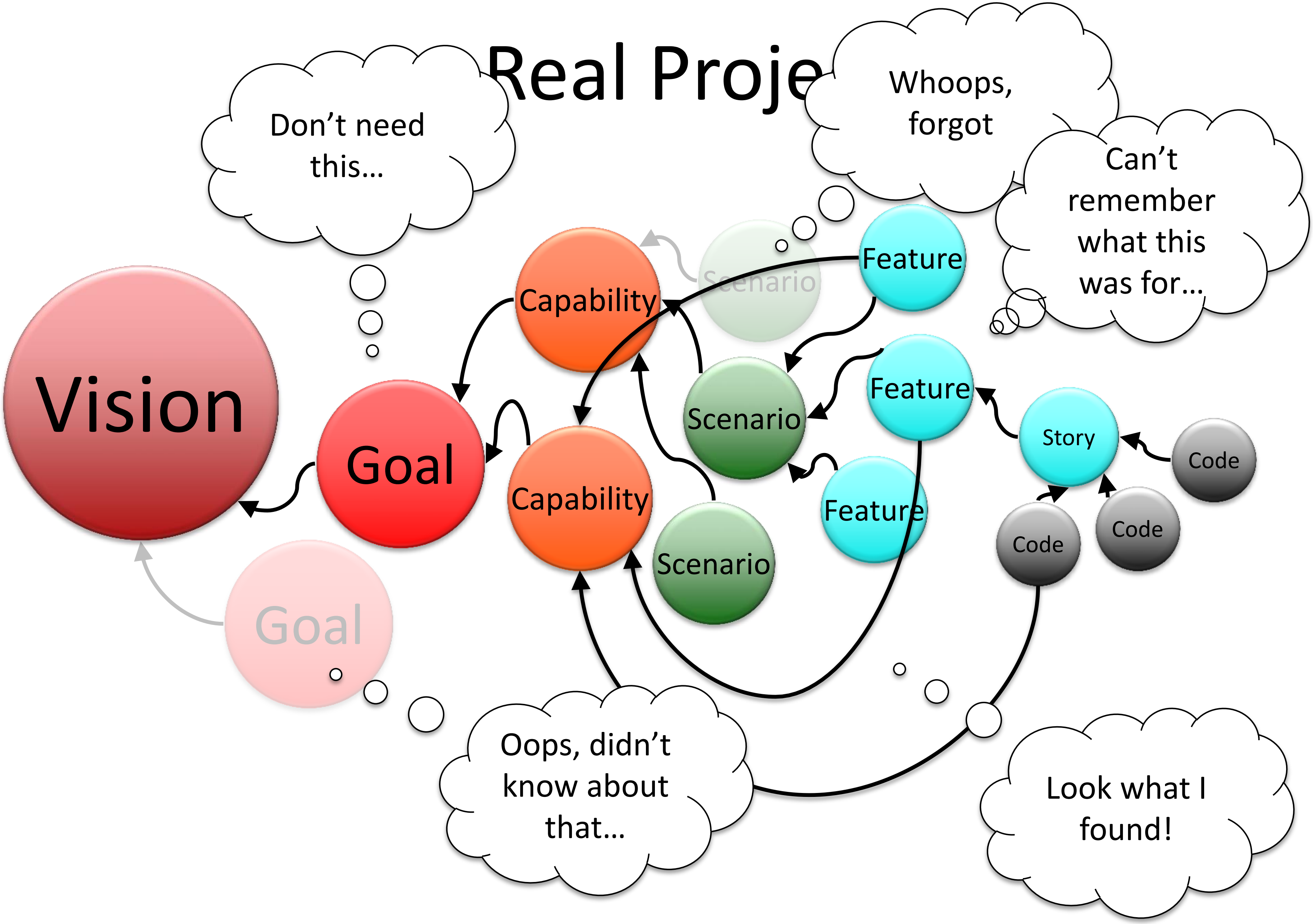


With thanks to
Michael James

Fractal beauty

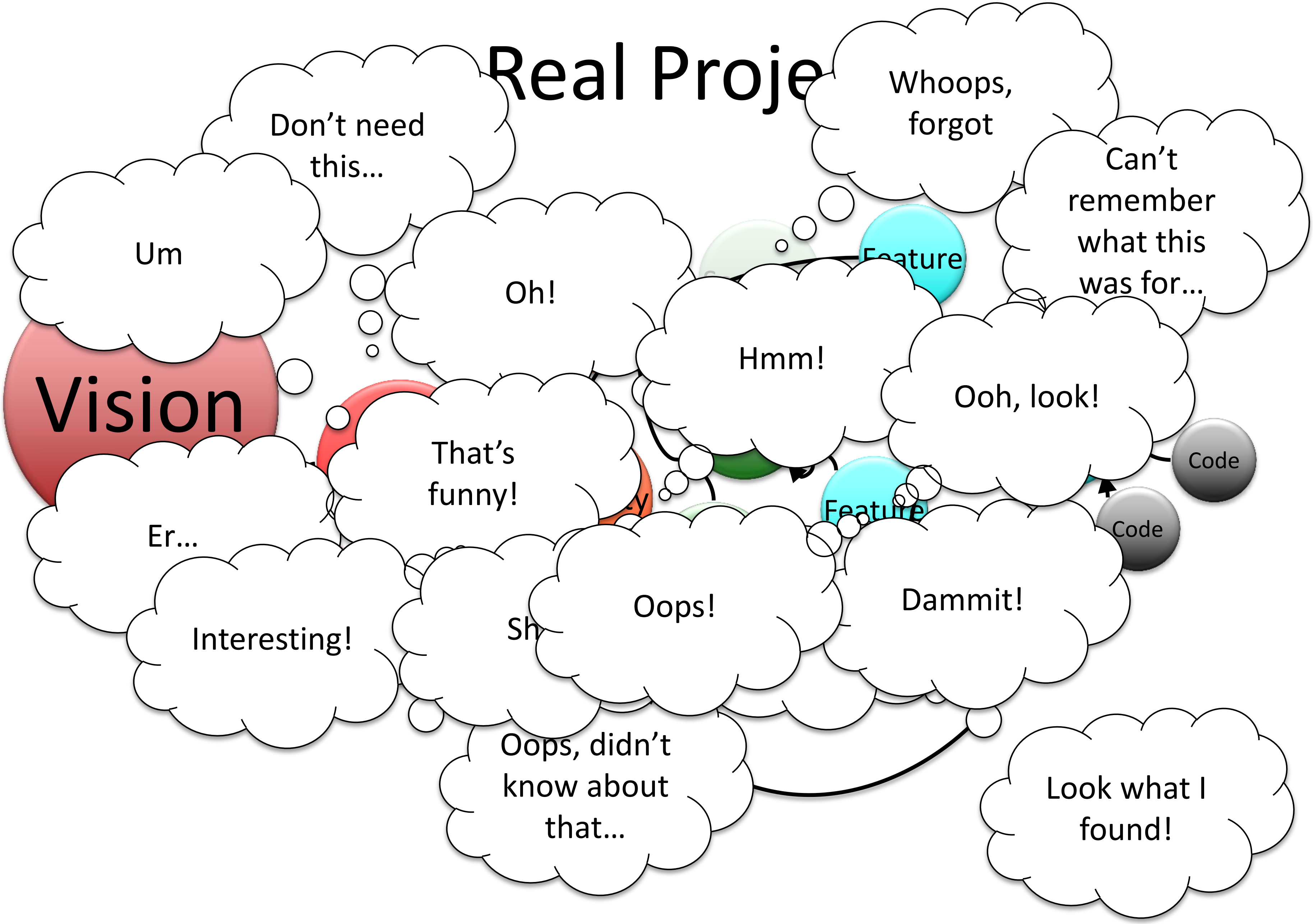


Real Proje

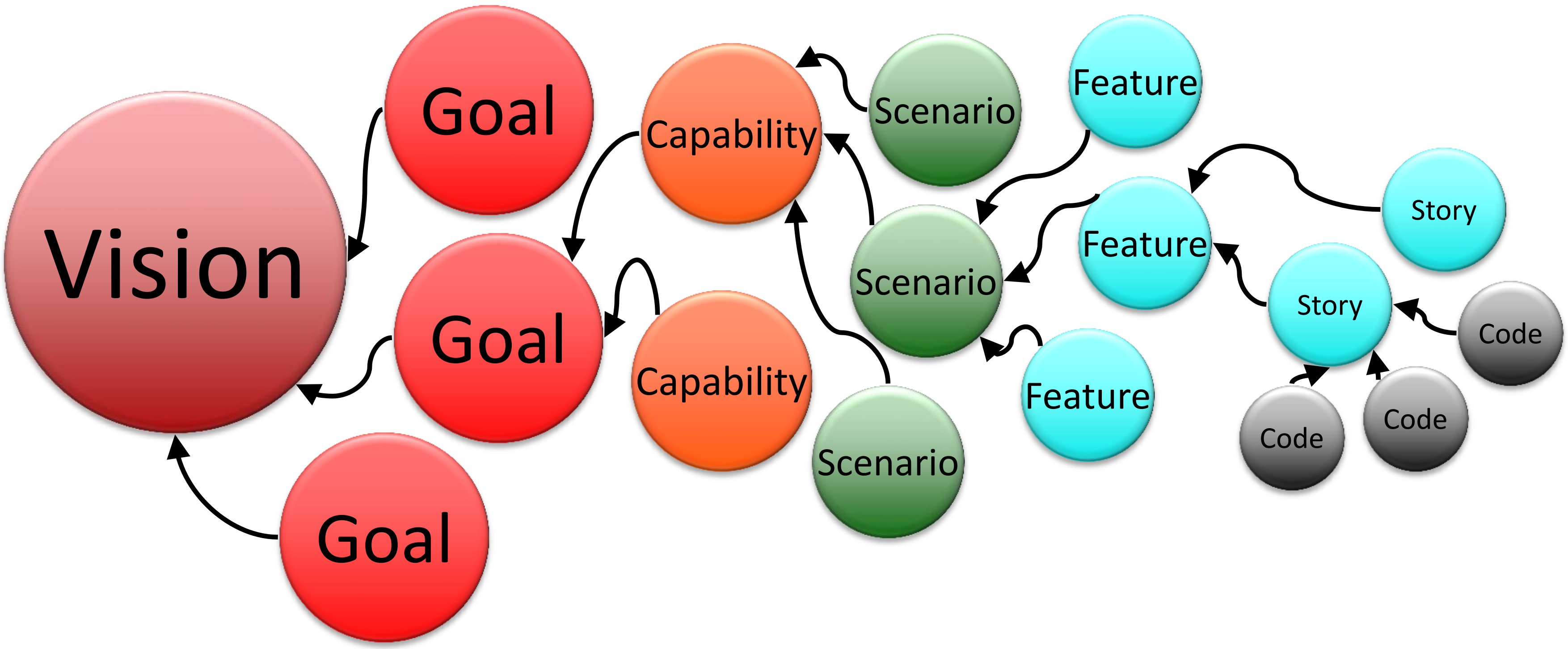


Don't need this…
Whoops, forgot
Can't remember what this was for…
Vision
Goal
Goal
Capability
Capability
Scenario
Scenario
Scenario
Scenario
Feature
Feature
Feature
Story
Code
Code
Code
Oops, didn't know about that…
Look what I found!

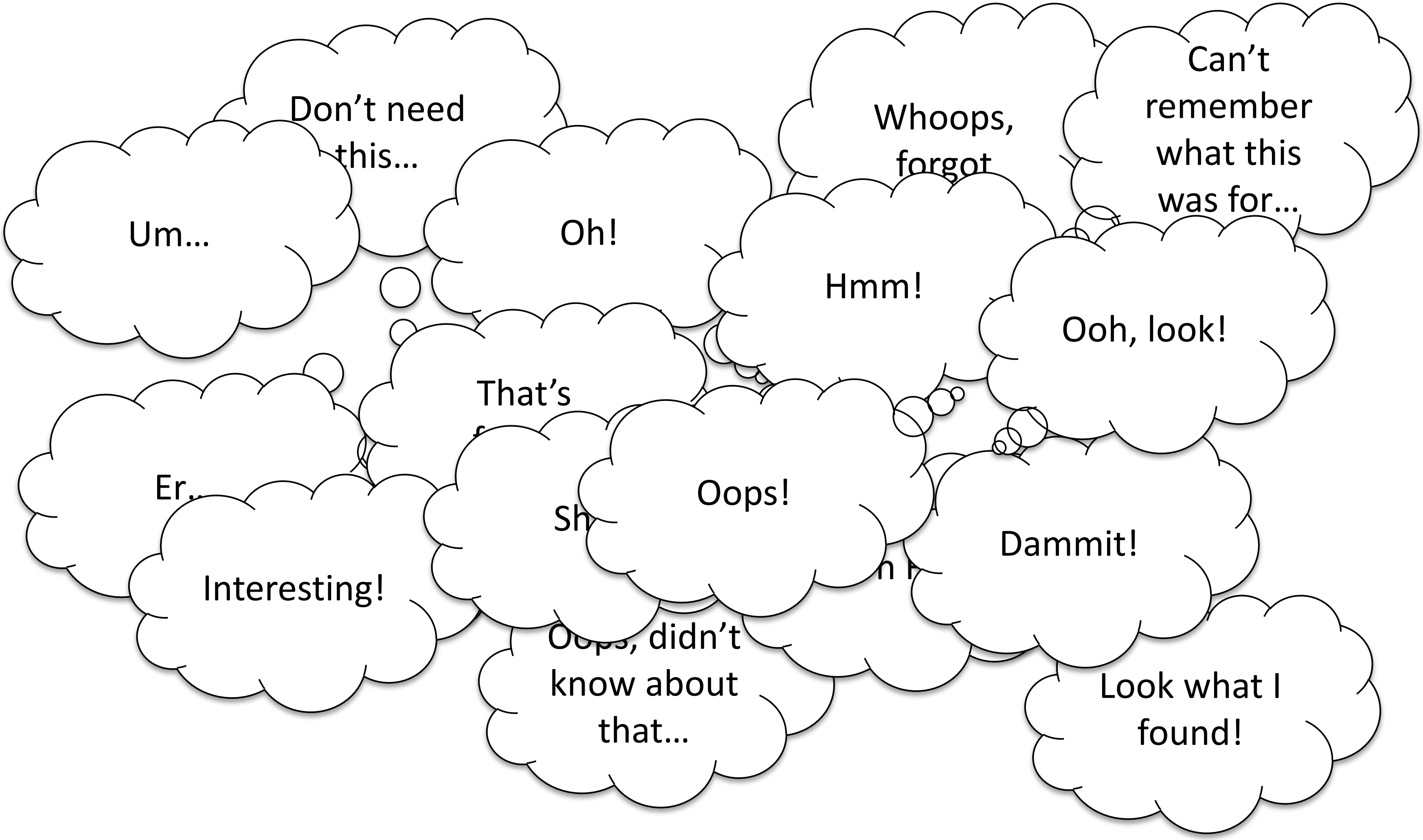
Real Proje


Don't need this…
Whoops, forgot
Um
Can't remember what this was for…
Feature
Oh!
Hmm!
Vision
Ooh, look!
That's funny!
Code
Code
Feature
Er…
ty
Dammit!
Oops!
Sh
Interesting!
Oops, didn't know about that…
Look what I found!

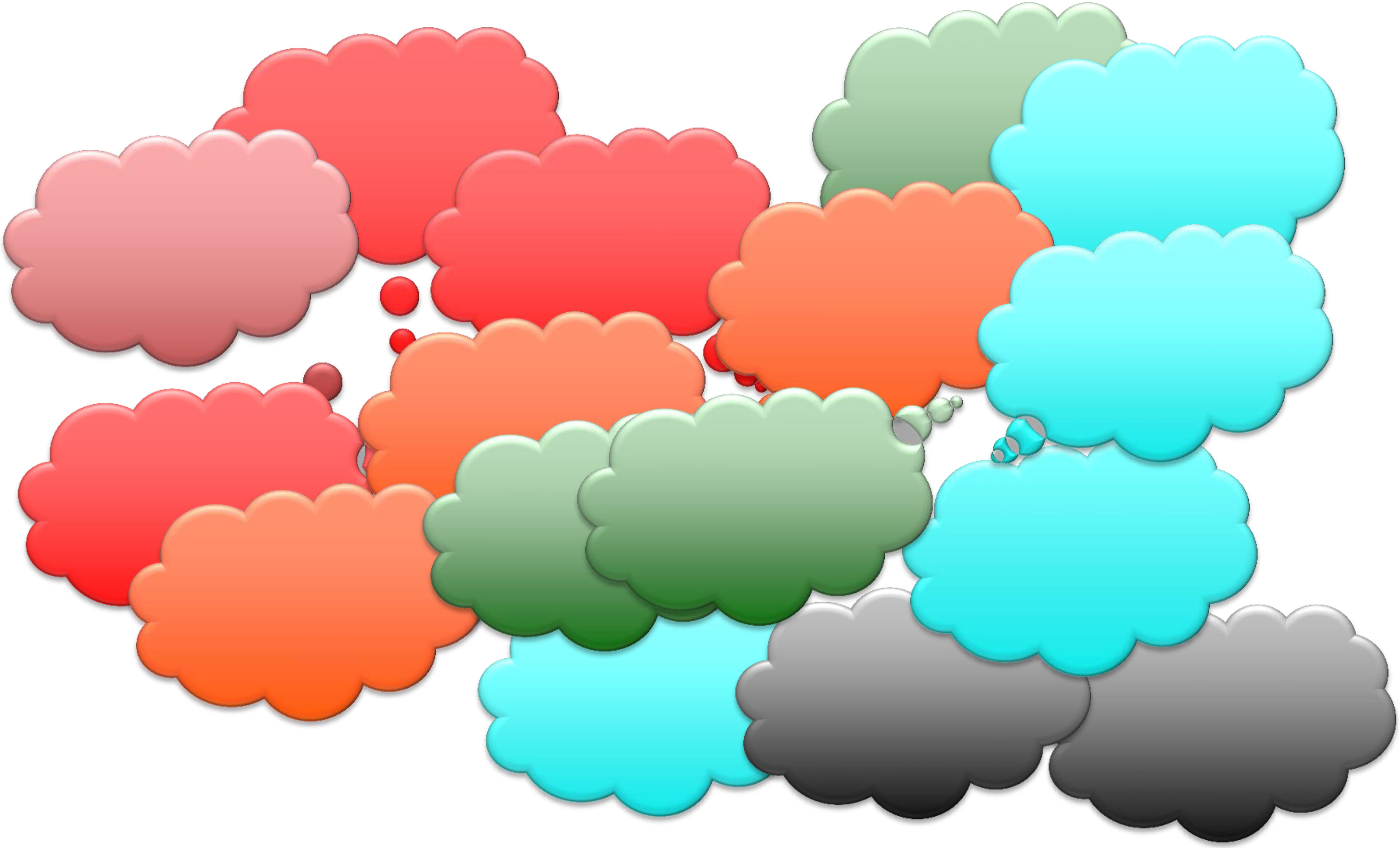
~~We are uncovering better ways of developing software by doing it~~



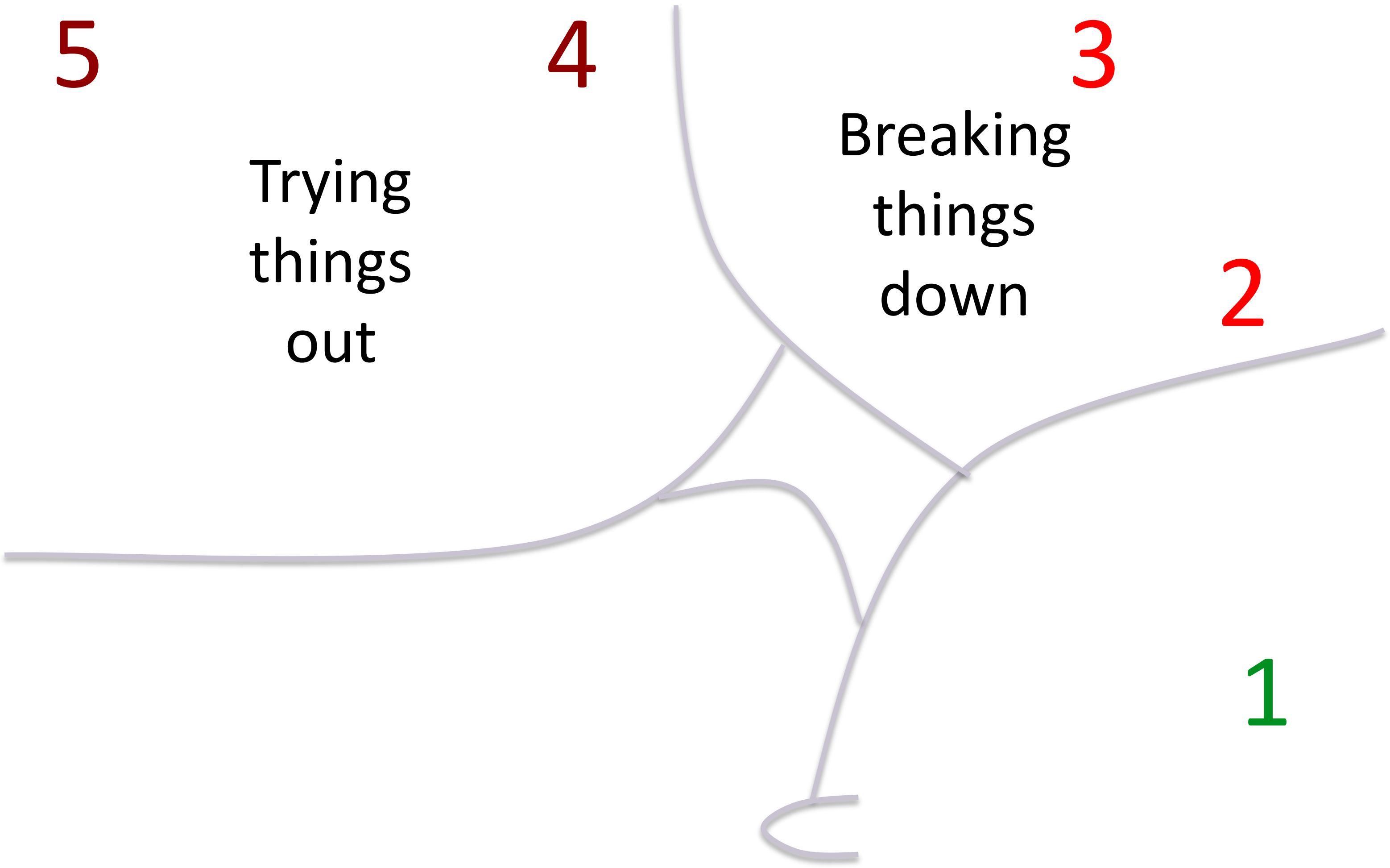
We’re discovering how to discover stuff by doing it



Different levels of granularity



Estimating Complexity



5

4

3

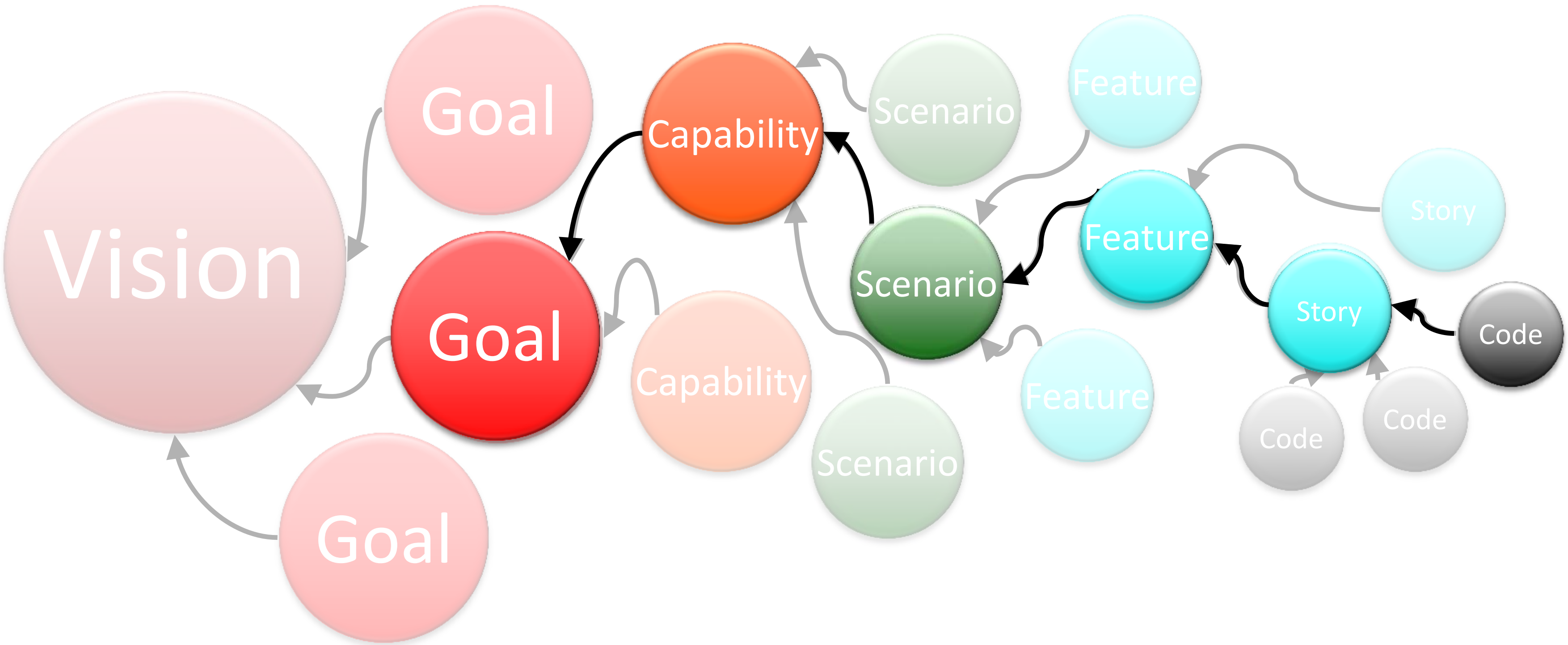
Trying things out

Breaking things down

2

1

Risk (Newest Stuff) First



Boring!

Given Fred has bought a microwave

And the microwave cost £100

When we refund the microwave

Then Fred *should* be refunded £100.

Really boring!

```
Scenario: user logs in and sees
welcome page

   Given a user registered with login:
   foo and password: test
   When user logs in with login: foo
   and password: test
   Then user should see the welcome
   page
```

Especially really boring!

```
Feature: Addition
  In order to avoid silly mistakes
  As a math idiot
  I want to be told the sum of two numbers
  Scenario: Add two numbers
    Given I have entered 50 into the calculator
    And I have entered 70 into the calculator
    When I press add
    Then the result should be 120 on the screen
```

Name ‘em and be done with it

User Registration:

- Create user
- Read / Update user details
- Delete user

Interesting!

Given Fred has bought a
120kg fridge-freezer

When we refund the fridge-freezer

Then um…

“We can’t accept this
into our backlog
without
clear acceptance criteria.”

Having conversations

is more important than
capturing conversations

is more important than
automating conversations

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