Real decisions,
Real responsibility,
Real management

zühlke
empowering ideas

Keith Braithwaite

Keith Braithwaite

With Zuhlke since 2006

- Business Unit Leader−Centre for Agile Practice

- Introduced Agile practices to
  - Whoelsale finance
  - Retail finance
  - Mobile telecoms

Previously:

- WDS Global
  - development manager in Singapore, 24x5 distributed Agile

- Senior Software Engineer at Penrillian
  - Anglo-indian company, embedded systems

Do you manage software development?

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We Screwed Up

Sorry

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We Screwed Up

Sorry

We got confused

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We told you a load of nonsense about software development

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Sorry

We got confused

We told you a load of nonsense about software development

This has cost you a lot of money

On the other hand…

"Requests start to come in faster, and with more urgency. By the end of a few months, it takes half a day for me to even respond to all of them. Every request is an emergency. I get nothing done, and without much notice, programming isn't what I get to do anymore. I love writing software, but the work is unbearable. I could never stop seeing myself as a software engineer, but I'm wondering if the industry as I had envisioned it does not really exist." *– redditor deltnurgsid*

Why do mangers permit this kind of nonsense?

On the other hand…

"Some advice from the world of book publishing […] multiple sales people all wanting different things, all bugging me over and over. I gathered them at a meeting and said that I'd be happy to help them but they had to decide amongst themselves which projects and features got priority […] when a salesperson came to me mid-week and pushed for something outside the list, I could say no and refer them to the list. They'd beg but eventually everyone got onboard with the manta of "If it's not on the list, don't even ask" […] I can work on that but I can only do it tonight after 5:30pm so I'll have to work overtime. If I do, then you have to be here with me until it's done." […] I never got a yes to this. […] Arrive on time and leave on time and take your lunch break every single day no matter what […] Make some unilateral decisions. This is the hardest one but it can also work incredibly well. I simply said no to some people […] Make it very clear to everyone in a single meeting that each request cuts away time and they will personally be responsible." – *redditor* <u>*mathewferguson*</u>

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Topics

Preconditions for Success

Where to Begin

What Happens Along the Way

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Preconditions

Things that need to be in place

- Or else you *will* struggle

- Of course, it won't be easy anyway

Value Programmer Productivity

Huh?

Thought experiment:

- Developer asks for a bigger monitor to improve productivity

- In your organization, what would happen?

The Monitor Question—Manager's Responses

Request dismissed out of hand

- Mental note: X is "not team player"

Referred out of existence

- Never-ending upwards chain seeking budget authority, or

- Ditto seeking permission for a "non-standard" monitor

Lip-service analysis leading to refusal

Hard-core analysis

- Could go either way, but honest whatever the outcome

Lip-service analysis leading to authorization

Authorized without question

What is a Monitor Worth?

Developers aren't cheap

annual cost	days	cost/day
£60,000	200	£300

Monitors aren't expensive

- £300 gets you 26"

How much more productive would they need to be?

actual work	201
paid-for work	200
required increase	**0.50%**

What Could a New Monitor Achieve?

Czerwinski's study at Microsoft

- between 10% and 44%

Anderson, University of Utah

- 52% for 24" relative to 18"

- 44% for two 20" relative to 18"

Call it 20%

% increase	20%
paid-for work	200
actual work	240
would cost	£72,000
saving	**£11,700**

What would *your* organization do?

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Be Aware of Your Model

Agile has less (but not nothing) to offer to

- Open-ended R+D
  - Or otherwise focusing on technical novelty

- Non time or budget critical

- Well known, fixed requirements
  - And solid estimation data

Agile really shines for

- Projects building systems with a user/business focus

- Time-critical delivery

Well known, fixed requirements

A team resisted the introduction of Agile

- They built emulators of mobile phone handsets

- Requirement is absolutely fixed
  - Phone does not grow new menus or buttons

- Estimation data was solid
  - They'd built dozens of these tings, all the same way

- Planning and tracking by Gantt chart was perfect
  - They were right to resist: all the pain of change for very little gain

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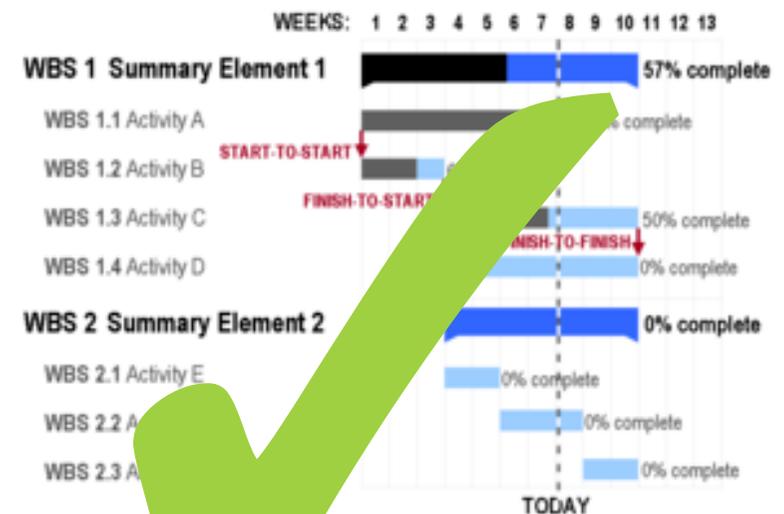
Test-first Process Improvement

Know what you want to achieve

- "Be better" is not a goal

- Neither is "be Agile"

It could be

- Reduced time-to-value

- Reduced defect rates

- Improved customer/user satisfaction

- Improved accuracy of planning

- The list goes on…

Ask what these things are *worth*
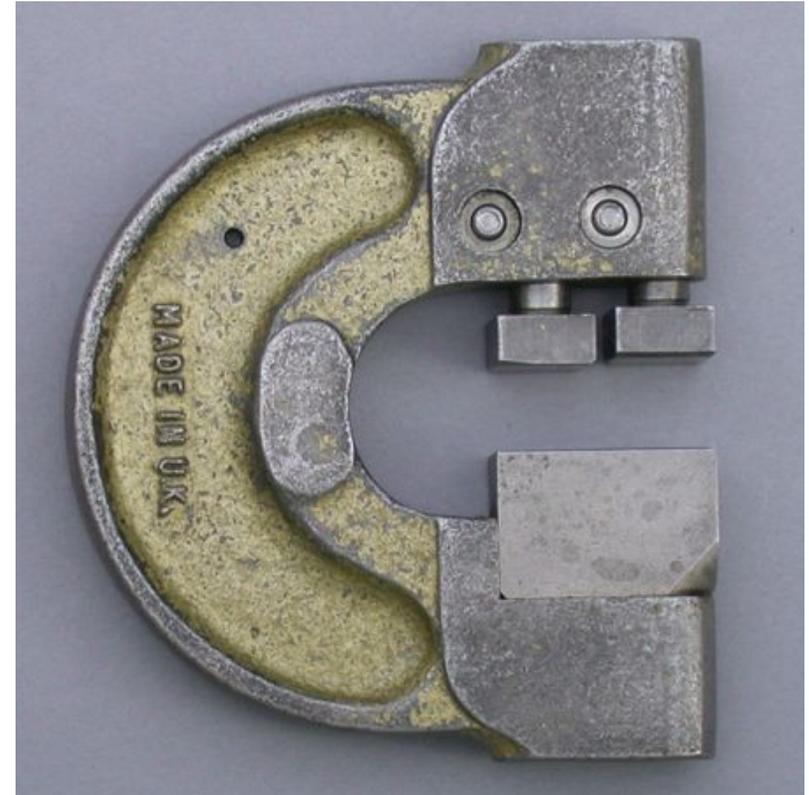
Example: Time-to-Value

Once Fund Manager's internal IT department

6-month release cycle

- *Best* case

- Manual testing

- Sometimes low quality

Goal: release new features monthly

Value: calculated through ability to bring new kinds of business to market earlier

Tracking: Within a year releases could be made every 6 weeks, and falling

IT Project as Financial Instrument

The traditional model makes this claim:
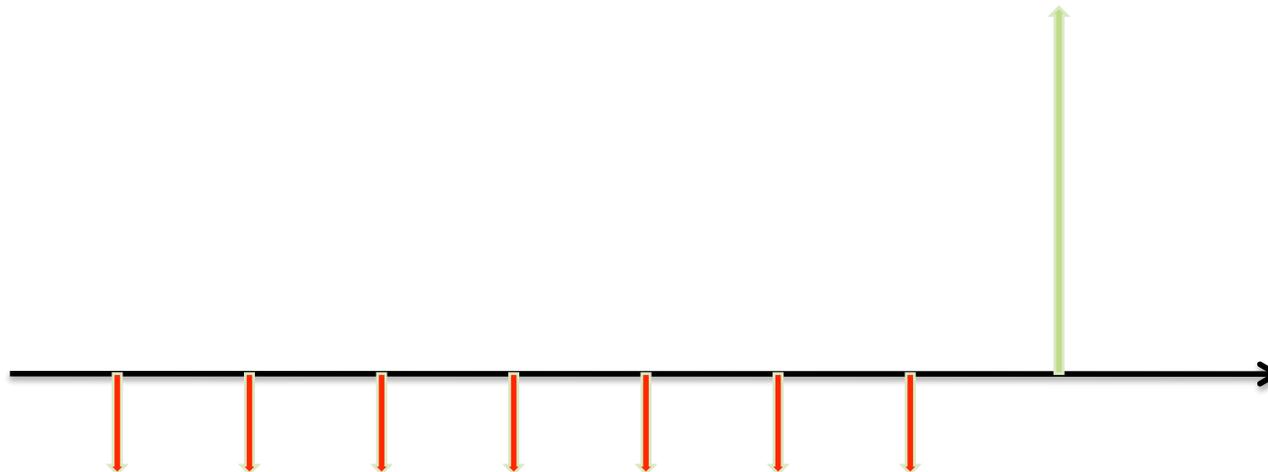
Too often ends up like this:

IT Project as Financial Instrument
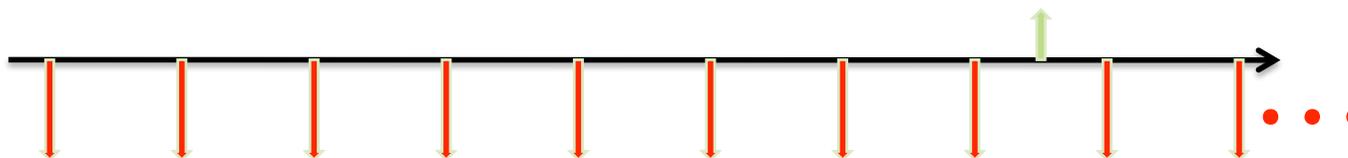
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Agile proposes something more like this:
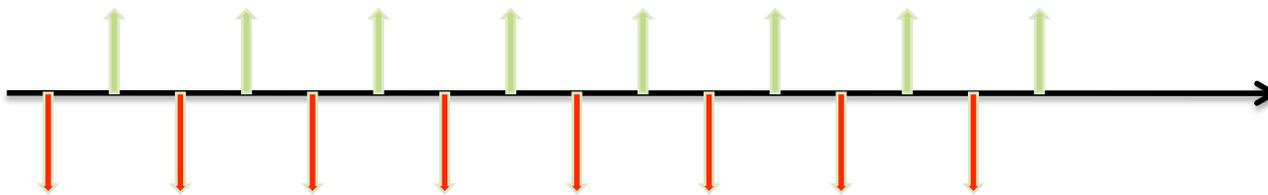
What Will Happen Along the Way?

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Some Developers Will Get Upset

Collective Code Ownership

- Some developers have a huge amount of ego invested in "their" code

No recognition for "Rock stars"

- Agile prefers the consistent team contributor over the temperamental genius

Testing

- Some programmers consider themselves too clever to need to test

- Some developers resent having to postpone "real work" to fix the build

# It Isn't Broken so they aren't Fixing it

Automated functional testing

- Braced for the usual post–release nightmare

- But the phones did not ring

- A defect–free release

- The approach now mandatory for all new build

Expected Non-hedge Orders						
Value Date	**Primary CCY**	**Type**	**Against Ccy**	**Amount**	**FxType**	**FxRate**
19-Mar-2008	CHF	FBY	USD	10000.00	Non Hedge	1.0000
19-Mar-2008	DKK	FBY	USD	10000.00	Non Hedge	1.0000
19-Mar-2008	GBP	FBY	USD	5000.00	Non Hedge	2.0000
19-Mar-2008	NOK	FBY	USD	10000.00	Non Hedge	1.0000
20-Mar-2008 *missing*	CHF	FBY	USD	10000.00	Non Hedge	1.0000
20-Mar-2008 *missing*	DKK	FBY	USD	3234.56	Non Hedge	1.0000
20-Mar-2008 *missing*	EUR	FBY	USD	785.71	Non Hedge	1.4000
20-Mar-2008 *missing*	GBP	FBY	USD	8889.76	Non Hedge	2.0000
20-Mar-2008	JPY	FSL	USD	4032768	Non Hedge	0.0010
20-Mar-2008 *missing*	NOK	FSL	USD	5555.12	Non Hedge	1.0000
20-Mar-2008 *missing*	SEK	FBY	USD	4016.23	Non Hedge	1.0000
25-Mar-2008 *missing*	JPY	FSL	USD	1000000	Non Hedge	0.0010
21-Mar-2008 *surplus*	CHF	FBY	USD	20000.0	Non Hedge	1.0
21-Mar-2008 *surplus*	DKK	FBY	USD	13234.56	Non Hedge	1.0
21-Mar-2008 *surplus*	EUR	FSL	USD	3658.73	Non Hedge	1.4
21-Mar-2008 *surplus*	GBP	FBY	USD	23334.64	Non Hedge	2.0
21-Mar-2008 *surplus*	JPY	FSL	USD	1.4032768E7	Non Hedge	0.0010
21-Mar-2008 *surplus*	NOK	FBY	USD	4444.88	Non Hedge	1.0
21-Mar-2008 *surplus*	SEK	FSL	USD	1967.54	Non Hedge	1.0

Safety Culture
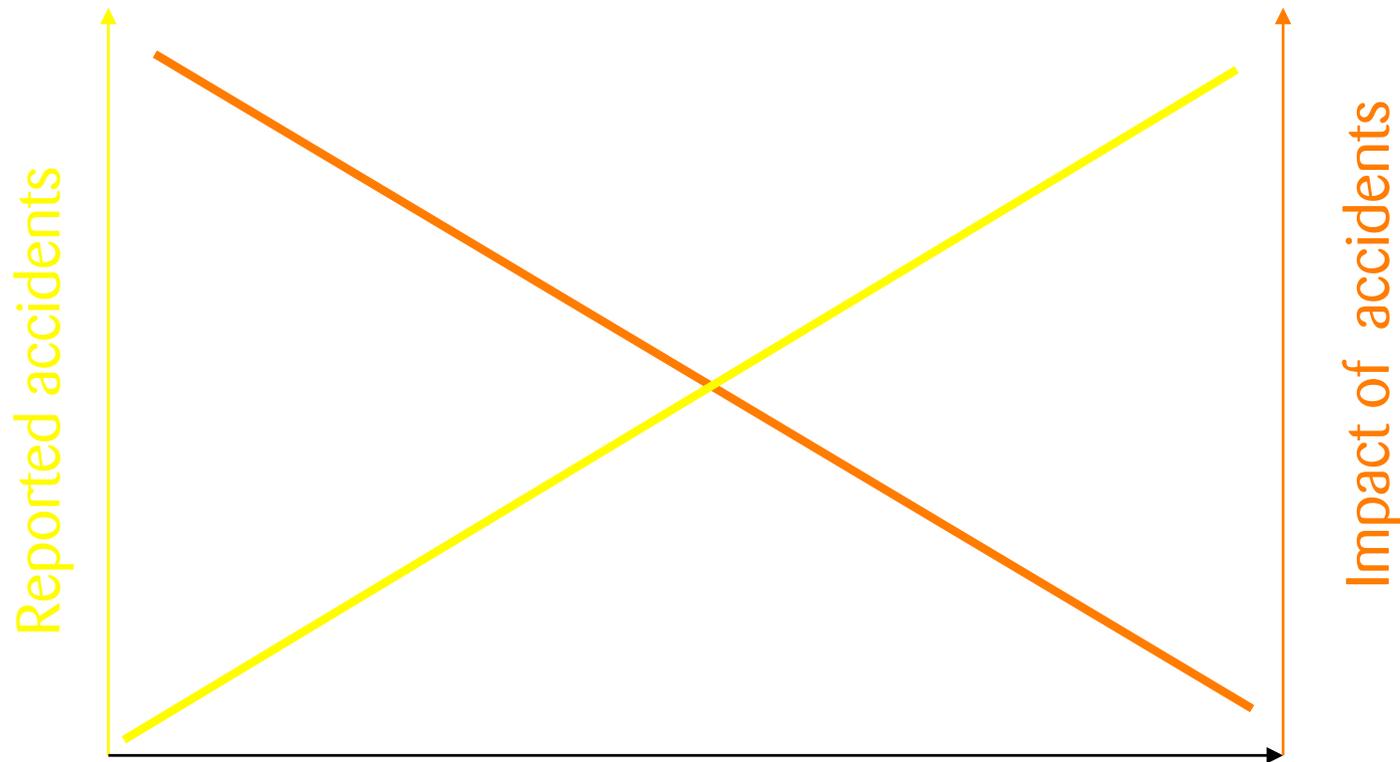
Testing Culture
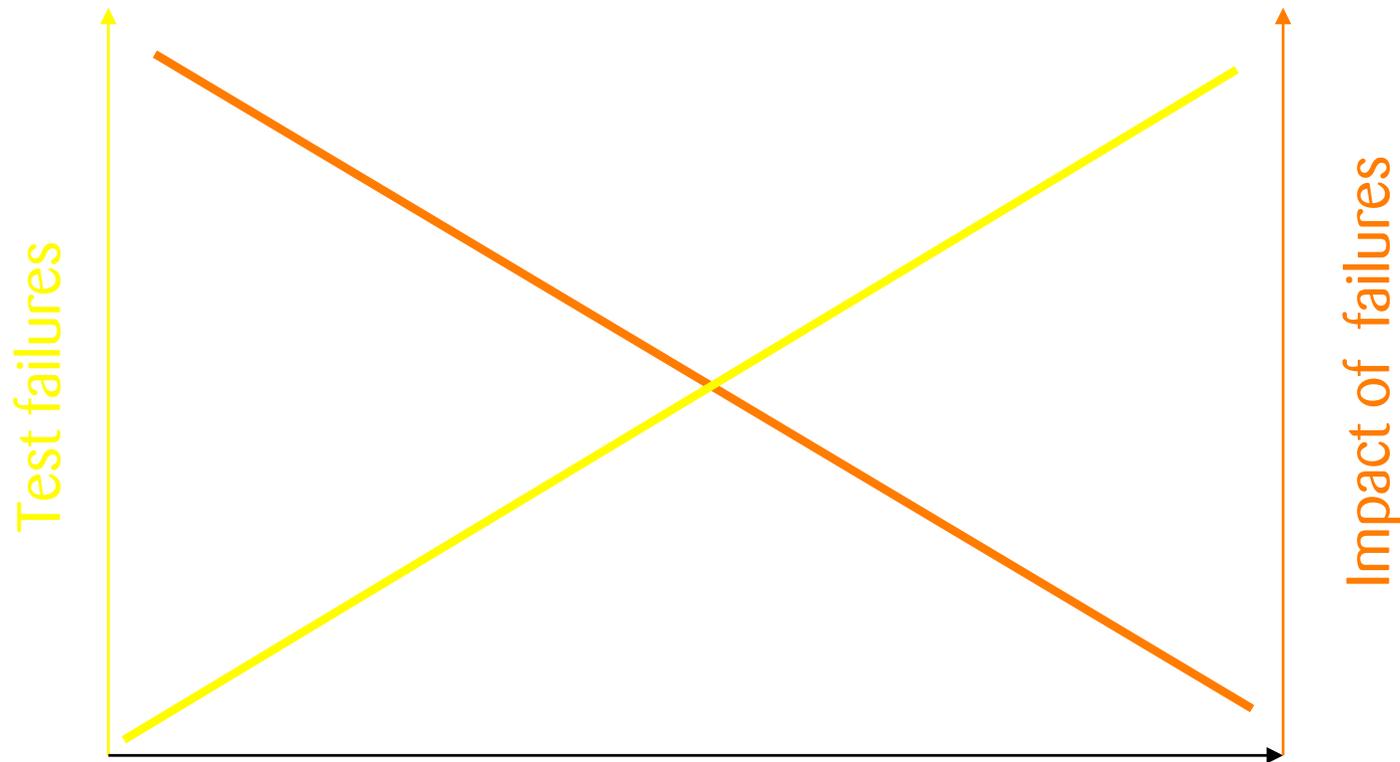
Test failures

Impact of failures

1970

SYSTEM
REQUIREMENTS

SOFTWARE
REQUIREMENTS

ANALYSIS

PROGRAM
DESIGN

CODING

TESTING

OPERATIONS
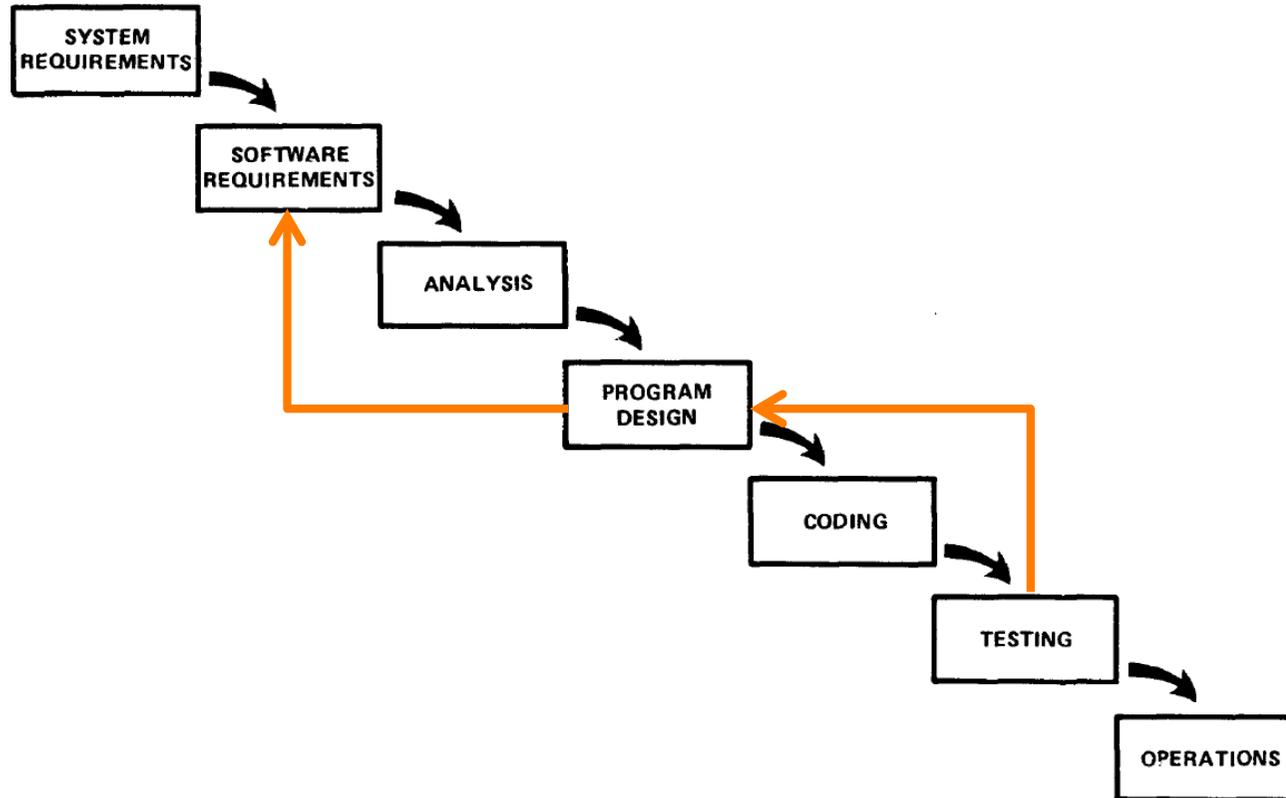
W. W. Royce, Managing the Development of Large Software Systems

Some Managers Will Get Upset

No more Gantt charts

- No %complete figures to fudge

- No assignment of tasks

- No planning daily activities six months in advance

Instead: real decisions, real responsibility, *real management*

Transparency

Ditch the Gantt chart

- Report number of (functional) tests written, passing
  - Trended over time
  - Projections based on a few likely scenarios
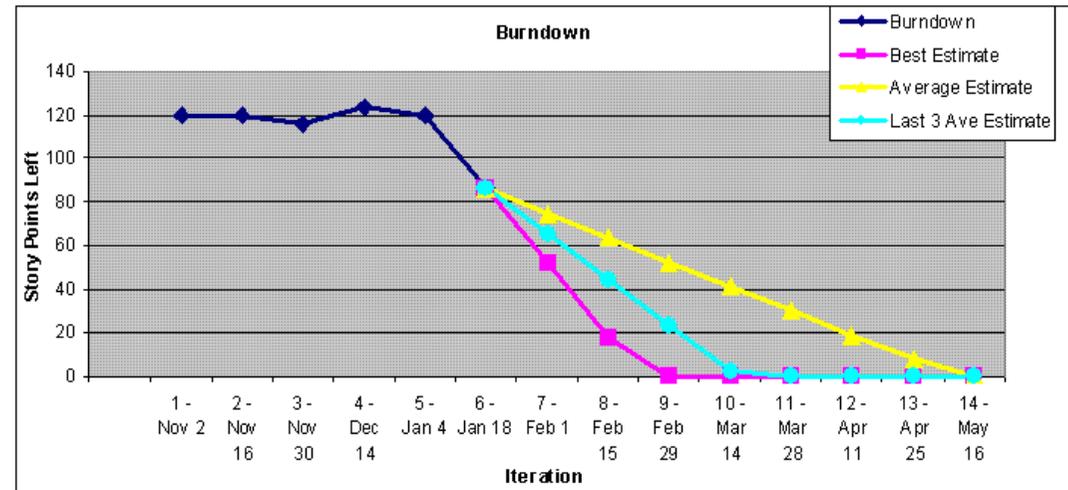
- At next project board
  - The news was not good, projections showed missing scope at delivery time
  - But, board very happy…

"The first time we've ever had a status report form a project that we believe"

- Therefore, realistic intervention possible, project did improve

Measuring Scope through Acceptance

- Acceptance tests for features

- Written before implementation starts

Mean

- Project scope is quantified

- IT has early access to success criteria
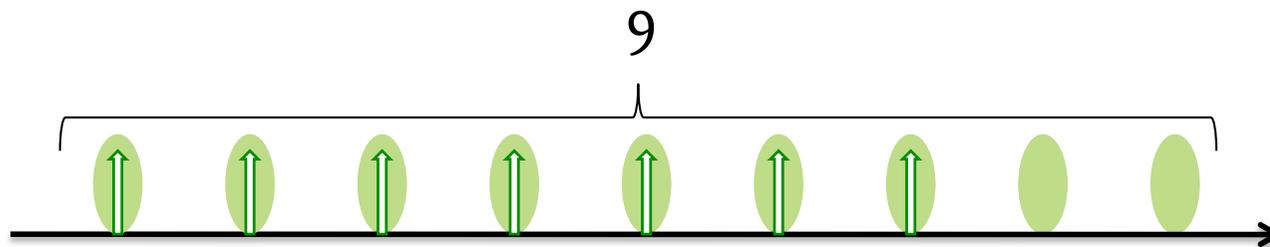
Measuring Progress through Value Added

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- **Passing Tests track Value Added**
  - Passing test means "feature present and working"
  - Working features stay working

Means

- **Progress is quantified**

- **Early warning of delivery risk**

Expected scope

Predicted delivery

Expected completion time

Progress By Tests
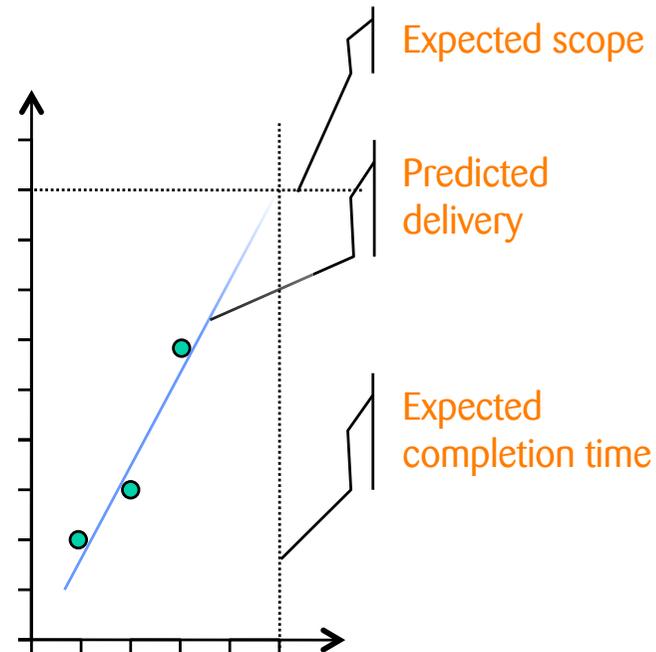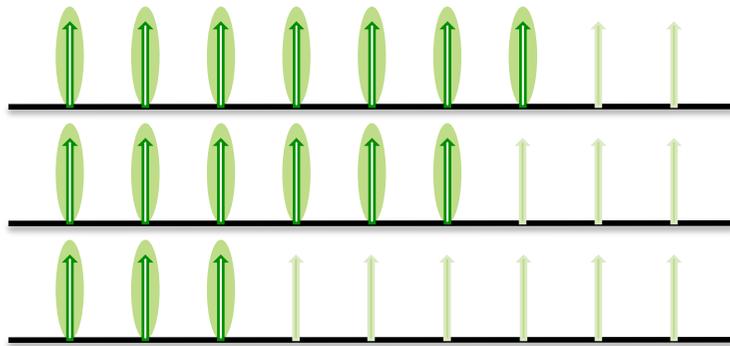
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Traditional
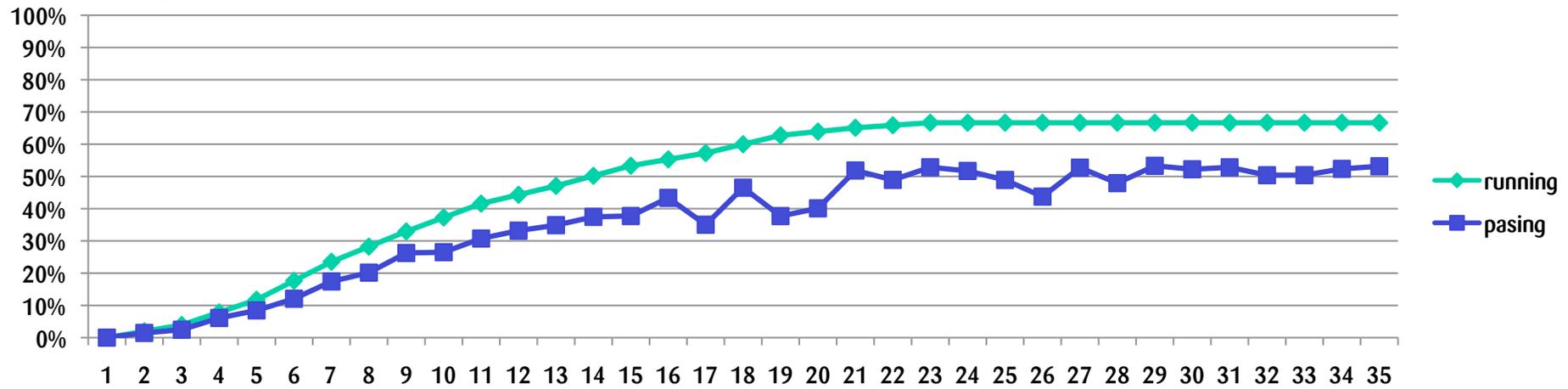
Agile

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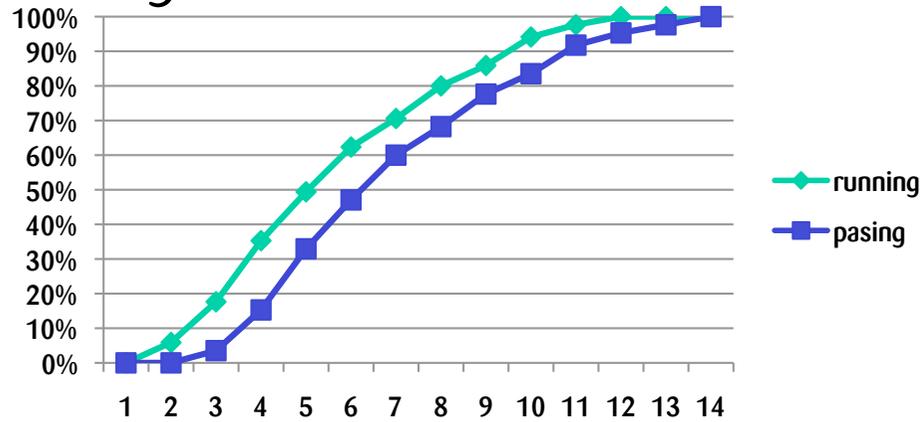
People About the Place will Get Upset

Being in close proximity to an Agile team can be a strain

- They're talking *all the time*

- They're never doing any *real work*
    - Translation: they appear to be enjoying themsleves

- They've got all this untidy stuff stuck on the walls

- How come *they* get the big monitors?

- What's so special about those *^&# $*§&'s?

What *is* so Special About Them?

They deliver. Every time.

This can be *big* shock to the rest of the organization

Other groups can respond badly

- Envy

- Jealousy

- Not happy at being shown to be incompetent

- Old established ideas shown to be wrong
  - Oh, how much money have they wasted over the years…

EXISTENTIAL THREAT

Questions?