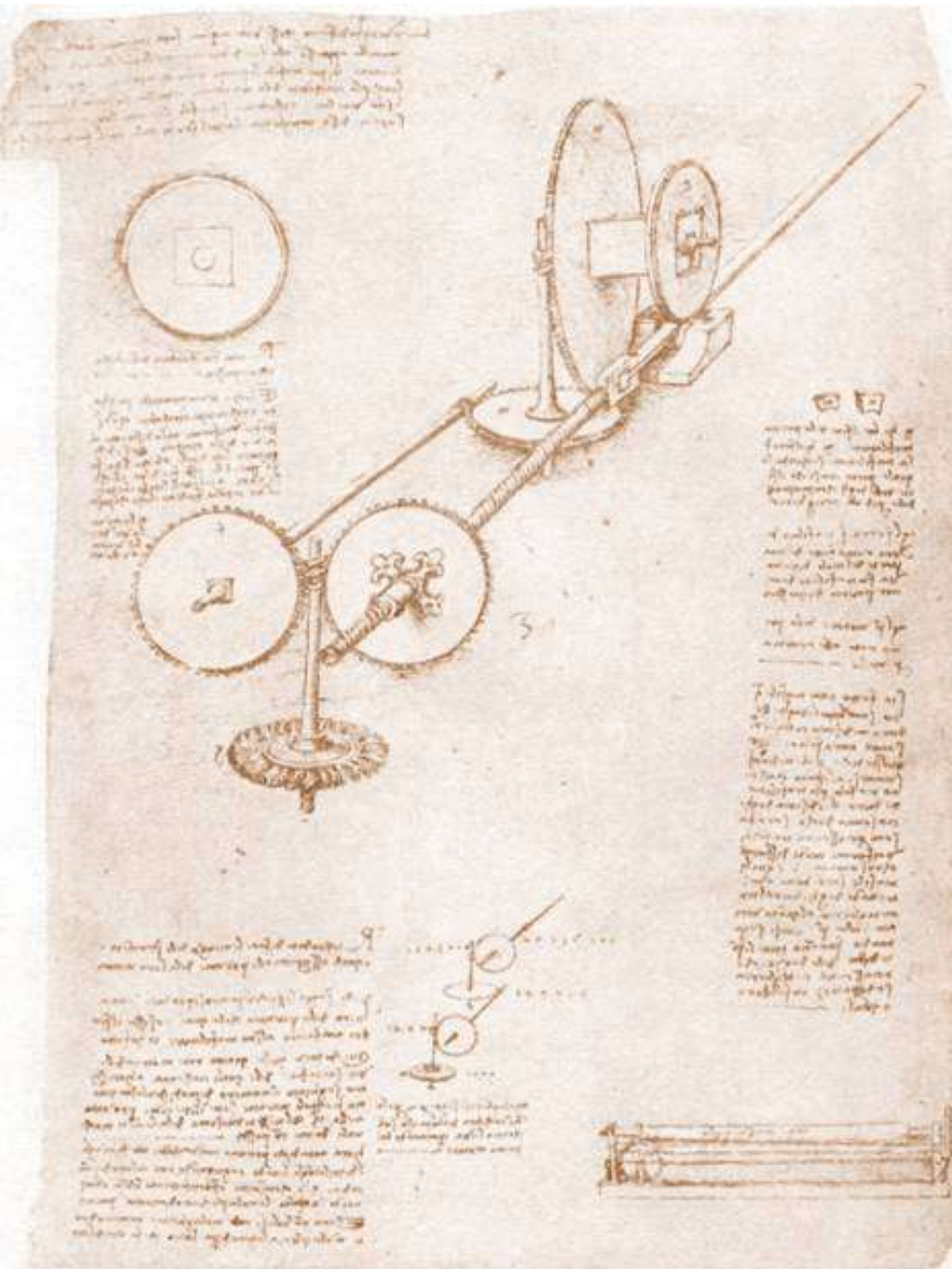




# Implementing an Organisation Wide Testing Approach

**Graham Thomas**  
Independent Software  
Testing Consultant

**TESTNET**  
Nieuwegein, NBC  
16<sup>th</sup> September 2008



# ABSTRACT



Over the last seven years I have been involved in several Test Improvement Programs. They have varied in size and nature but all have had the same aims. To improve testing, increase efficiency and effectiveness, and better support the overall development lifecycle.

There is no doubt that Testers want to do better testing. We all want to do a better job. If not for personal pride and satisfaction then because we want to improve, in order to get a better job and ultimately earn more money.

And Test Improvement Programs will help us do that. But only up to a point. Eventually, and sometimes sooner rather than later, you reach the point where to continue to improve the testing process you are going to have to change some practices, process and behaviours outside the testing team.

You need the business to set realistic timeframes. Project managers to create realistic plans. The development process to provide adequate and timely; requirements, design and build information. Least of all you need better quality code, and when it isn't good quality, you at least need it fixed in the order that your testing demands. And so on . . . .

You find yourself in the situation where you need to improve the other aspects of the development lifecycle to gain further benefits from your Test Improvement Program.

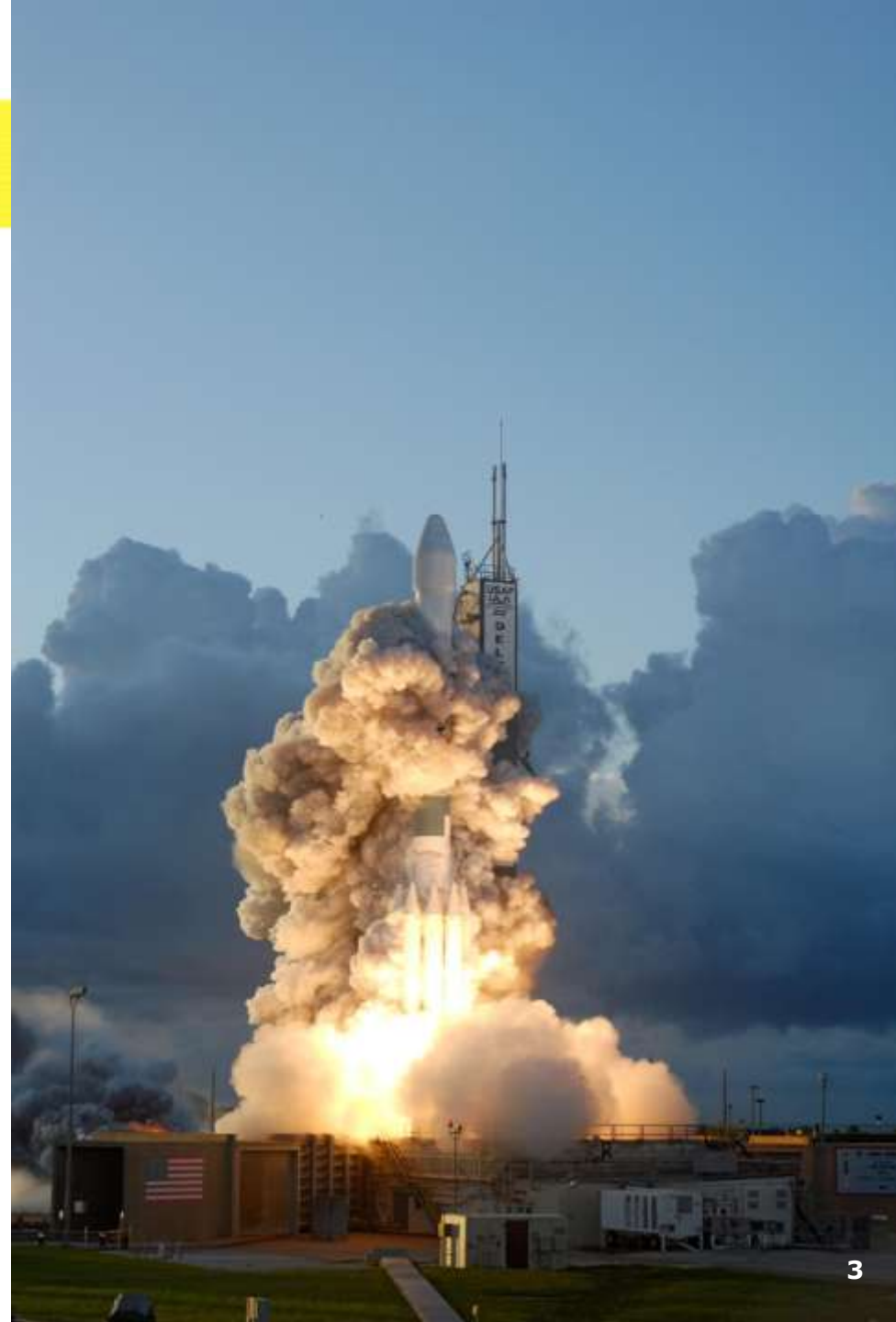
And to be successful, this level of organisational change can't be imposed or mandated. You are going to have to work with the other members of the development team to successfully bring about this change.

As the old joke goes *"How many Change Managers does it take to change a light bulb?  
Just one, but the light bulb has got to want to change!"*



# AGENDA

- ① Introduction
- ② Approach to change
- ③ A model
- ④ Selling the change
- ⑤ Implementing the change
- ⑥ Summarise



# Video 1



# WHERE TO START?



- **You probably know that things aren't quite right**
  - Testing seems to be taking too long
  - There are too many production problems
  - Testing seems hard – environments, resources, inputs
  - It is difficult to explain to people how well the testing is going
  - *Pesky vendors keep on calling saying; "Buy our tools, buy our services"*
  - Conference presentations sound wonderful – but how?
- **So you initiate a review to get a better view of Testing**
  - Not just within the testing area
  - But also including up and downstream activities
  - Across the development lifecycle
  - Including; Stakeholders, Sponsors, Customers and Suppliers

# THE REVIEW



- **Execution**

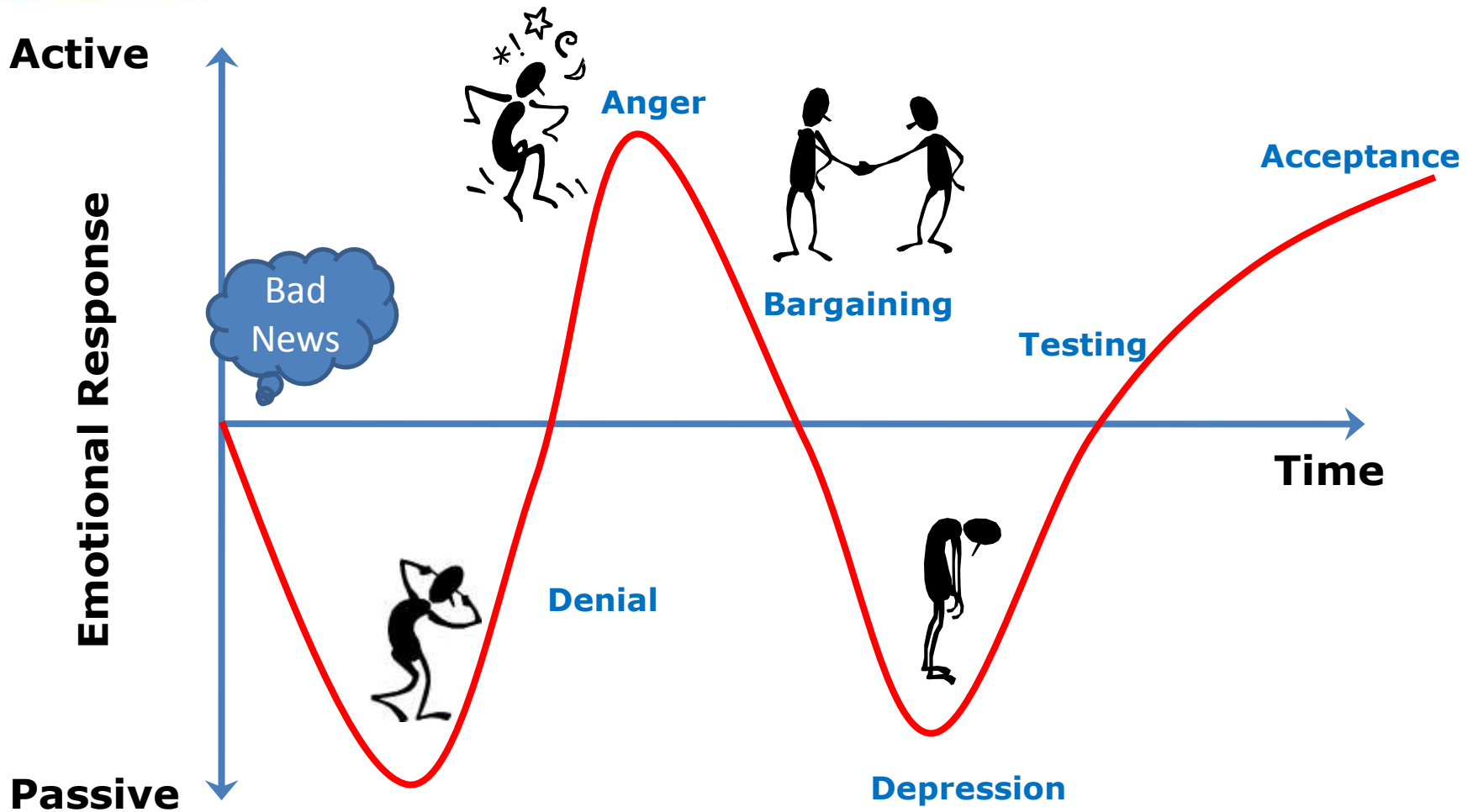
- Be impartial, objective, analytical
- Get a representative view, you don't need to see everyone
- Get an independent view – external expert
- Look inwards as well as outwards with the review
- Don't accept anything as 'Given'
- Respect that people are busy, be accommodating

- **Presentation of Findings**

- Test your findings out before publication
- Present your findings without emotion
- Get good sponsorship and support
  - No budget or No resource = **NO GO!**

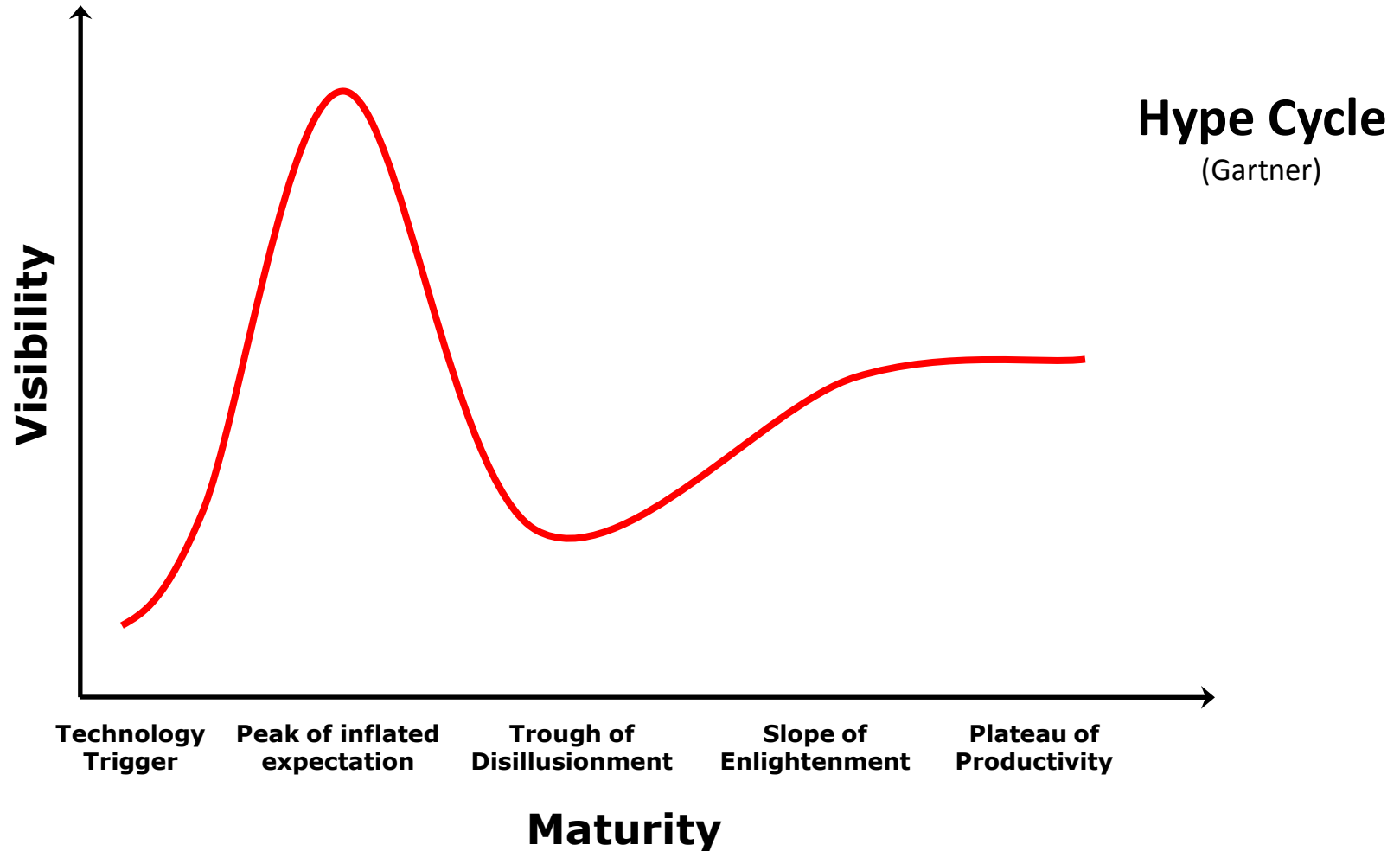


# APPROACH TO CHANGE



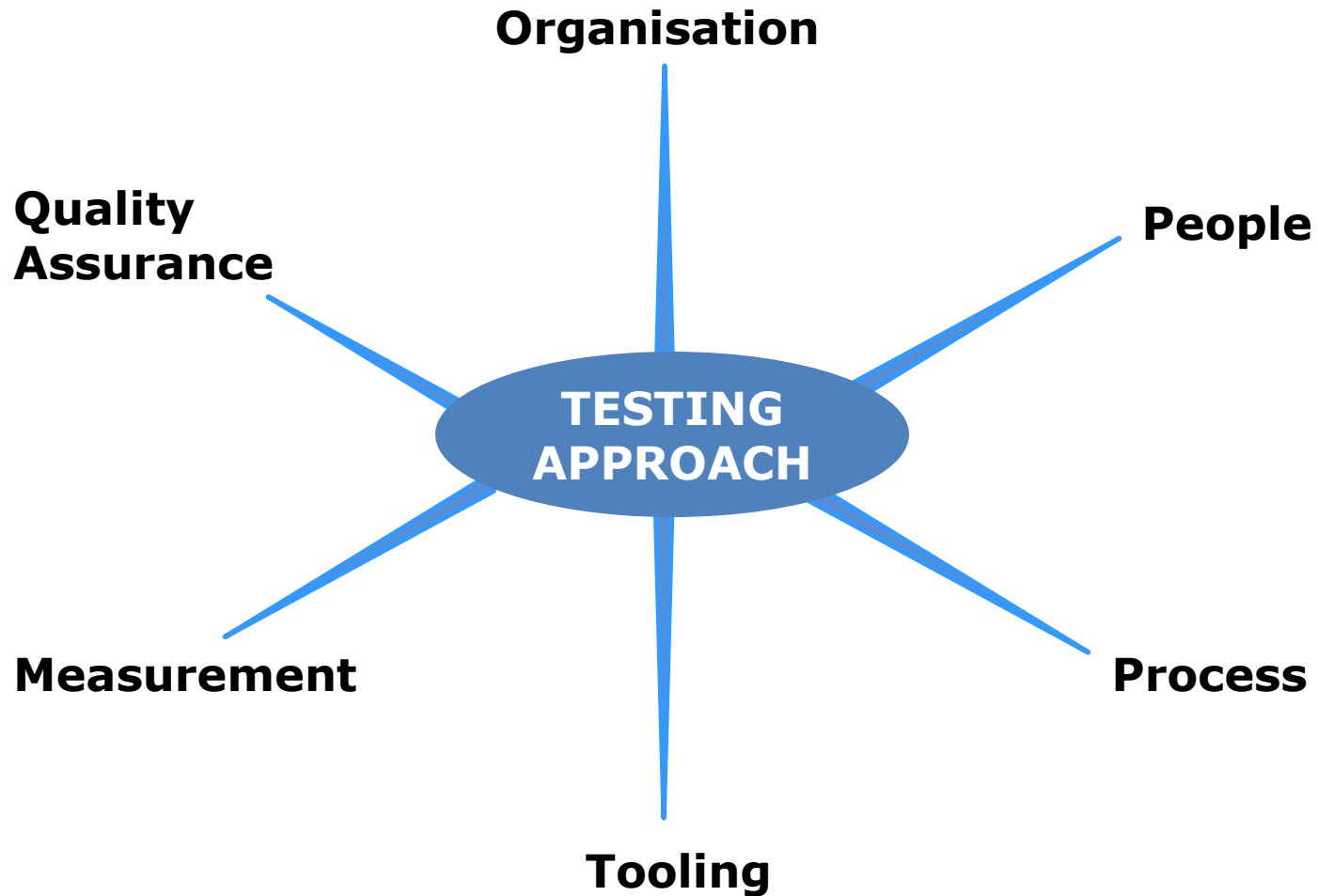
Kubler-Ross model - 5 Stages of Grief

# APPROACH TO CHANGE

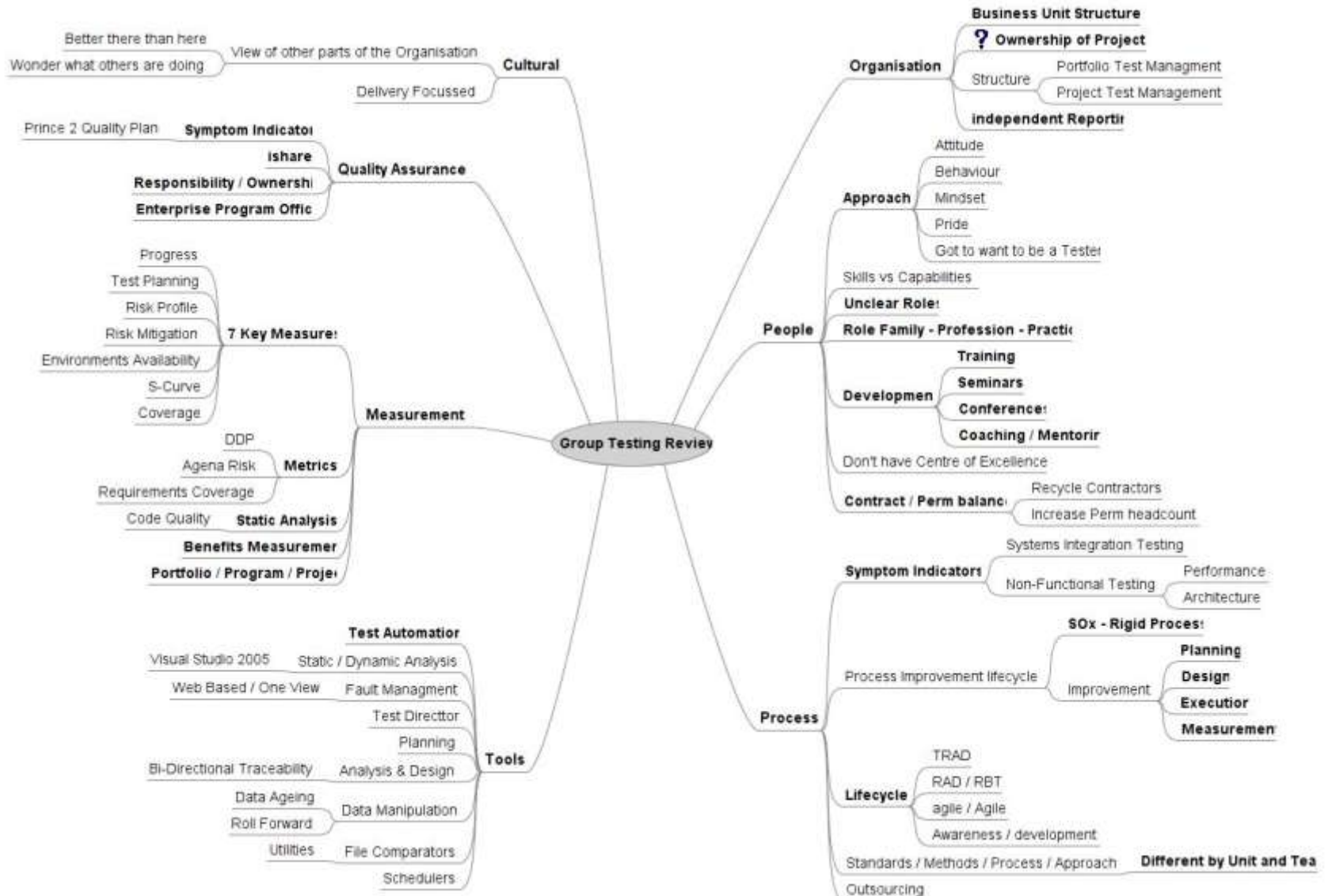




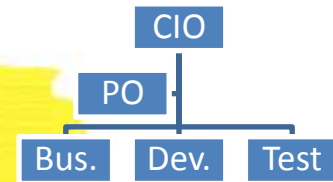
# A MODEL FOR CHANGE



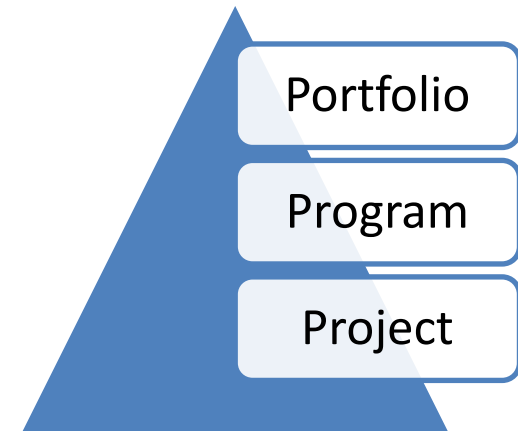
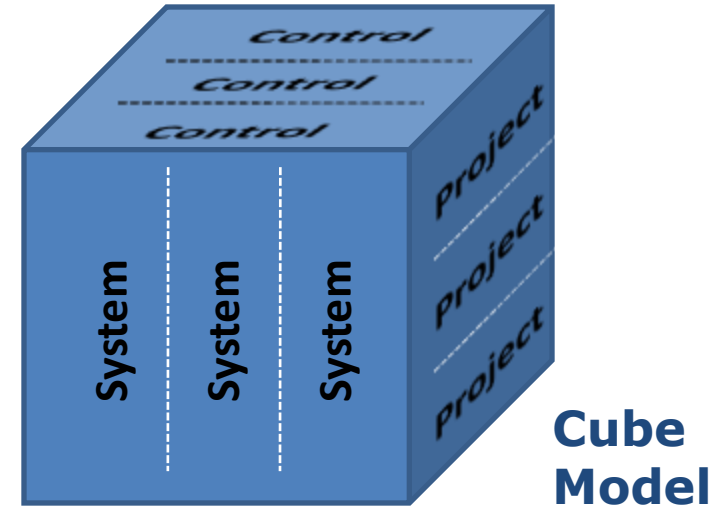
# THE DETAILED MODEL



# ORGANISATION



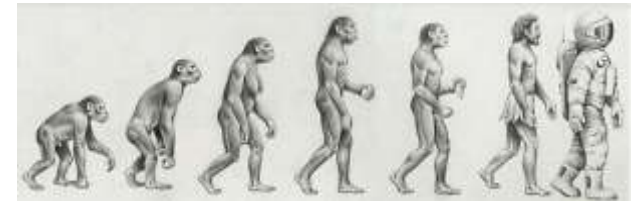
- **Independent reporting lines**
- **Break out of the delivery line**
- **Matrix managed world**
  - Delivery
  - Portfolio
  - Business
- **Report the same information**
- **Rolled up view**
  - System
  - Project
  - Program
  - Portfolio



# PEOPLE



- **Change / Transform the people**
- **Ownership & Empowerment**
- **Awareness**
  - Lifecycles, models, approaches
- **Development**
  - Training, seminars, conferences
- **Reward**
  - Equality with development
  - Grades structures
  - Recognition



# PROCESS



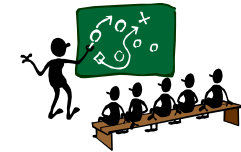
- **Fix the broken stuff**

- Quick Wins
- Value Add from the review process



- **Identify key processes**

- Testing strategy
- Testing lifecycle
- Reviews (& Inspections)
- Align with development lifecycle
- Risk Based
- Alternative lifecycles
- Regression testing



$$R = P \times C$$

# TOOLING

- **Target tools that will give biggest benefit**

- Look at Fault Management first
- Test Planning
- Static & Dynamic Analysis
- Data Creation & Manipulation
- Comparators
- Load
- Schedulers
- Test Execution– when the test process is reliable



- **The benefits from Group Working will be as large if not larger than those from Test Execution**

# MEASUREMENT



- **Measures & Metrics**

- Progress
- Planning
- Risk – Profile, Mitigation
- S-Curve
- Environment Availability
- Coverage

- **Development Measures**

- Quality, Coverage, Complexity

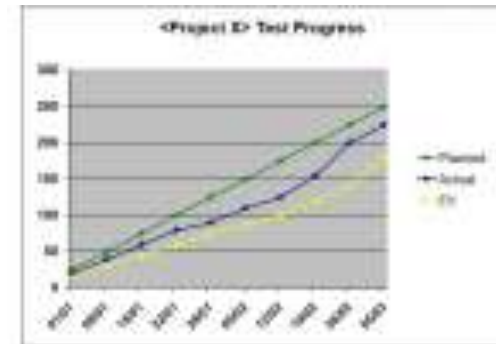
- **Portfolio Level**

- Rolled up; Progress, Risk, Efficiency, Effectiveness

- **Benefits Management**

- **Integrated with Organisational Metrics Program**

[www.badgerscroft.com](http://www.badgerscroft.com)



# MEASUREMENT (2)



AUG		Processes					
		Strategy	Approach	Planning	Execution	Reporting	Closure
People	AA	█	█	█	█	█	█
	AB	█	█	█	█	█	█
	CD	█	█	█	█	█	█
	CH	█	█	█	█	█	█
	FT	█	█	█	█	█	█
	JT	█	█	█	█	█	█
	SR	█	█	█	█	█	█
	SS	█	█	█	█	█	█
	ST	█	█	█	█	█	█
	TH	█	█	█	█	█	█

Capability Matrix

JAN		Capability Level				
		One	Two	Three	Four	Five
Processes	P1.1	█				
	P1.2	█				
	P1.3	█				
	P1.4	█				
	P1.5	█				
	P1.6	█				
	P1.7	█				
	P1.8	█				
	P1.9	█				
	P1.10	█				

Assessment Levels



# QUALITY ASSURANCE



- **Quality is the responsibility of all**
- **Embedded within processes**
- **Avoid Quality Police**
  - Policing, Enforcing, Mandating, Imposition
- **Quality Assurance**
  - Ensuring that the processes are working correctly and not just checking (QC) that the products produced by those processes are correct
- **Across the lifecycle, not just Testing**
  - Requirements, Analysis, Development, Project / Program Management
- **Regulatory, Audit and Compliance obligations**
- **Quality Assurance Strategy**

# Video 2



# SELLING THE CHANGE

- **Communicate, Communicate, Communicate**
- **Feedback to all involved in the Review**
- **Regular and on-going progress briefings**
  - Sponsors, Stakeholders, Customers, Suppliers
- **Align your benefits with organisational goals**
- **Gain buy-in to external change**
  - Make them want it, then they will do it
- **Tell them; What is going to happen, What is happening, and What has happened**
- **Publicise your successes**
  - Be honest about your failures



# IMPLEMENTING THE CHANGE

- **Thin Threads Model**

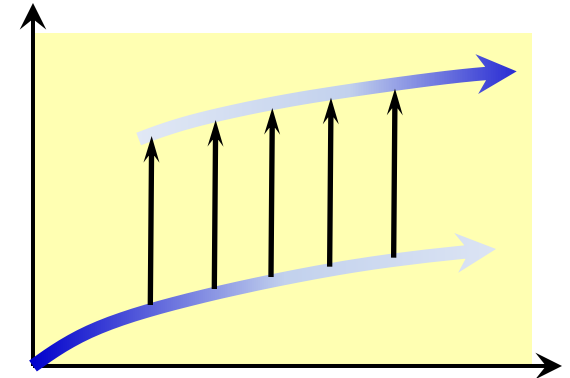
- Change process to work at new level
- Ensure process still works with old

- **Holistic view of change**

- Can't make this level of change in isolation
- Testing change needs to be integrated into an overall change program

- **Dependencies and Priorities**

- Understand dependencies across whole change program
- Apply Testing Change that brings best Organisational benefit



# RESISTANCE TO CHANGE



## What you will see

- **Alternative** change initiatives
- Full support – with **anything but**; resource, budget, commitment
- **Yes, but** it doesn't apply to me
- **Exemptions** – IPS (Important Project Syndrome)
- A thousand reasons **why not** – each one has to be defended against
  - Yet no-one has to justify continuing to operate inefficient processes!
- Active **spinning** against your work
- Management **failure to support** the *message* and permission given not to take part
- We have **failed before**, why will this time be different

# Video 3



# SUMMARY



- Undertake a review and feedback to all
- Develop a model for the way forward
- Gain real buy-in before proceeding
- Ensure you have sponsorship
- You can't undertake this level of change in isolation
- You are dependent upon change outside your control
- Influence, Stakeholder Management and Communication
- People will resist change for many different reasons

*“That to be successful with any form of organisational or process change, whether that be testing or not, you have first got to get the organisation to want to make that change.”*

**Graham Thomas**

# CONTACT DETAILS



**Graham Thomas**

**Independent Software  
Testing Consultant**

✉ [graham@badgerscroft.com](mailto:graham@badgerscroft.com)

☎ +44 7973 387 853

🌐 [www.badgerscroft.com](http://www.badgerscroft.com)

