Experimentus
excellence in software quality management

The future is bright – but we have some hurdles to climb

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TAPOST
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Assess | Visualise | Transform | Manage | Train

Who is Geoff Thompson?

- Tested for nearly 30 years, climbed from test analyst to the Director for Testing at large UK insurance company

- In 2004 established Experimentus to help test organisations get better at what they do

- Hot press – just last week became UK MD for Planit Testing, a testing services and consultancy company based in Australia/New Zealand and the UK

- Was a founder member of the ISEB Software Testing Board, and contributed to the very first Foundation syllabus and exam

- Was the architect of ISTQB, and helped write the first ISTQB Foundation and Advanced syllabi, now ISTQB secretary

- Founder member of TMMi Foundation

- Awarded the Testing Excellence award in 2008, and the Testing Lifetime achievement award in 2015

- Still focused on helping people to improve testing
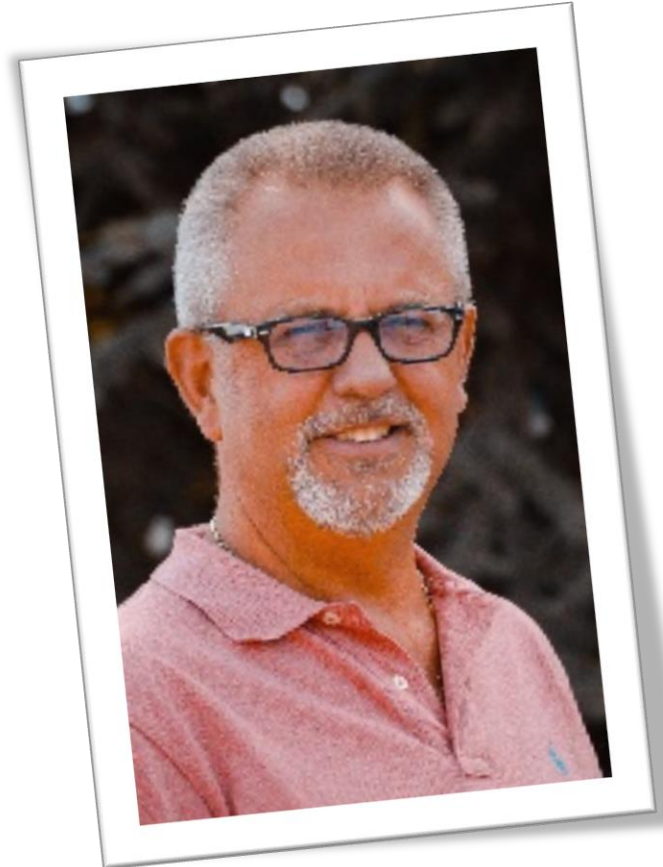
- Achieving success is fraught with danger

- There are Pitfalls….lets call them Quality Assassins
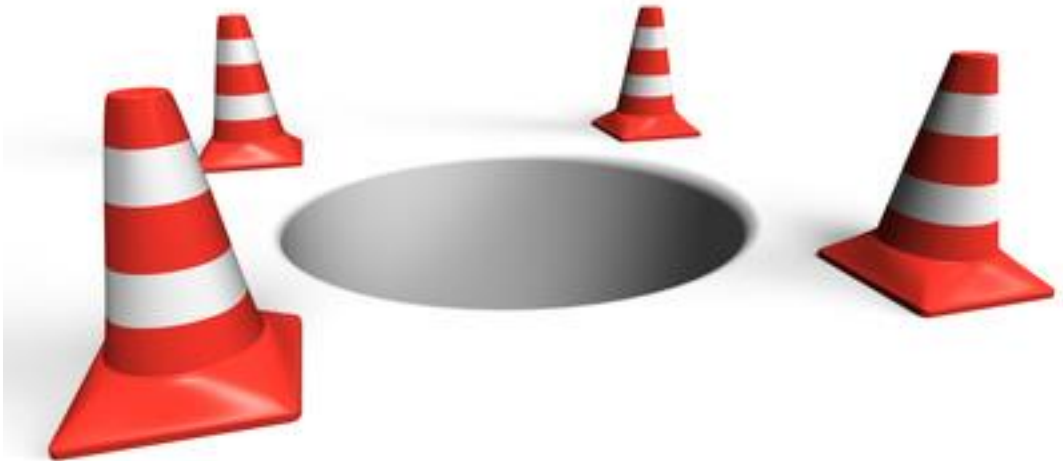
Quality Assassin No 1

The focus is on speed,
not quality or
Blindness to the true
cost of quality

The 'the world ends
when the project is
launched' pitfall

No thanks!

We are
too busy

Going by 'feel', not facts

The 'where am I?' pitfall!

Kicking off a project before the business is ready.

The 'cant stand still' pitfall!

Lack of buy-in from users

The 'what do the users matter' pitfall
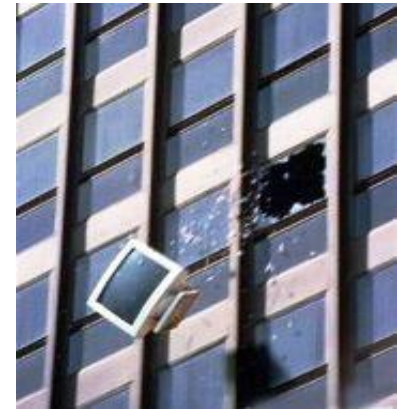
Faulty design

The 'cost escalation' pitfall

Success from failure

The 'fail and die' pitfall

FAIL
[F] FiRST
[A] ATTEMPT
[I] IN
[L] LEARNING

Address:
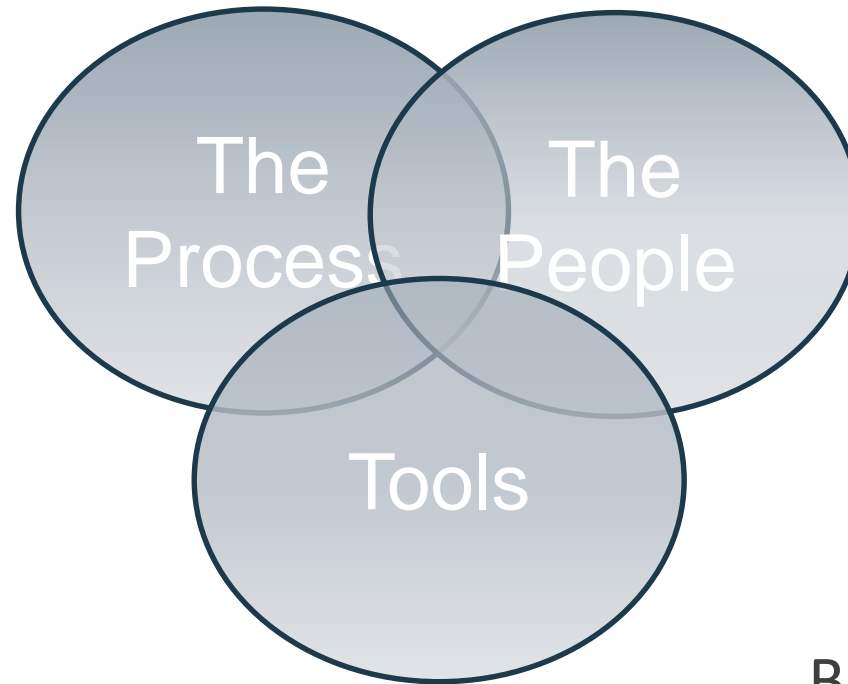
Build quality into the entire software quality process

The process change plan

Initiation and Setup	Baseline	Develop and Test	Pilot	Deployment
Structure		Process updates / creation	Pilot selection criteria	Identify Test Change Champions
Governance and reporting	As is survey	KPI's	Pilot Success Criteria	Deployment Plan
Charter/ TOR	Implementation Approach	HR	Pilot training	Training Materials
Plan		Tools	Pilot Delivery	Benefit Measurement

Change Management →

Stakeholder Management/Communication →

80% of effort on people and culture

Peak of Inflated Expectations

Plateau of Productivity

CHAOS

Change Trigger

Slope of Enlightenment

Old Status Quo

Trough of Disillusionment
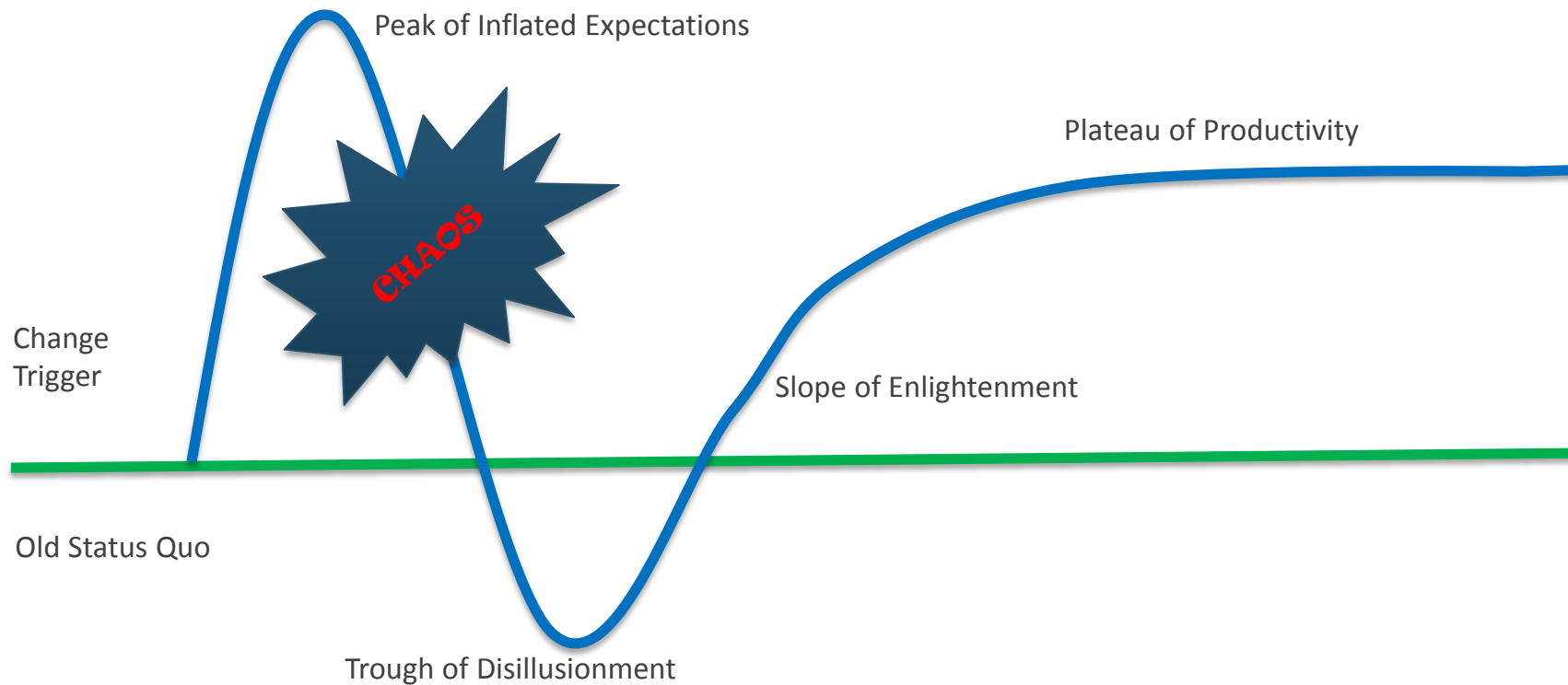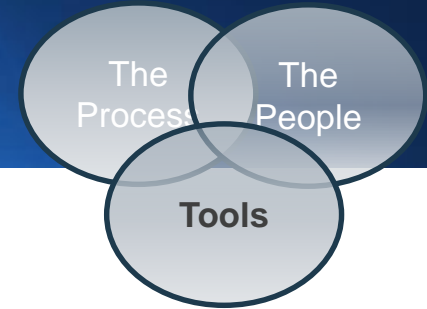
Tools

The tools:

- Process and People help us with effectiveness in terms of improvements

- Further improvement in process as well as their adoption, coupled with the involvement of appropriate tools – will help address the Compress aspect and increase efficiency

How to measure progress?

- How are we doing today – what should I measure?
  - Use existing data to establish where you rea...

How to measure progress?

- How are we doing today – what is this really costing us?

Once you have the defect and RCA information you can apply some base costs to show the real cost of finding and fixing these defects for your organisation

Defect Cost Report - Mobile Phone Application

Originated In	Test Level								
	1 - Reviews / Static	2 - Component	3 - Component Integration	4 - System	5 - System Integration	6 - Acceptance	7 - Production Acceptance	8 - Production Warranty	Total
1 - Requirements	143	1,286	8,250	18,000	0	16,000	0	0	43,979
2 - System Specification	0	0	0	3,000	0	16,000	0	0	19,000
3 - Technical Design	143	0	0	3,000	0	8,000	0	0	11,143
4 - Coding/Customisation/Build	0	0	0	3,000	40,000	16,000	0	157,500	216,500
5 - Data	0	429	0	15,000	0	16,000	8,000	0	39,429
6 - Environments	0	0	0	3,000	15,000	40,000	4,000	7,500	69,500
7 - Testware	0	0	750	1,500	0	16,000	4,000	0	22,250
8 - Implementation/Configuration	0	0	0	1,500	0	40,000	4,000	82,500	128,000
9 - External Systems / 3rd Party	0	0	0	0	0	0	0	0	0
10 - User	0	0	0	0	0	0	0	0	0
11 - Other	0	0	0	0	0	0	0	0	0
Total	286	1,714	9,000	48,000	55,000	168,000	20,000	247,500	549,500
Total %	0.1%	0.3%	1.6%	8.7%	10.0%	30.6%	3.6%	45.0%	

How do I measure progress?

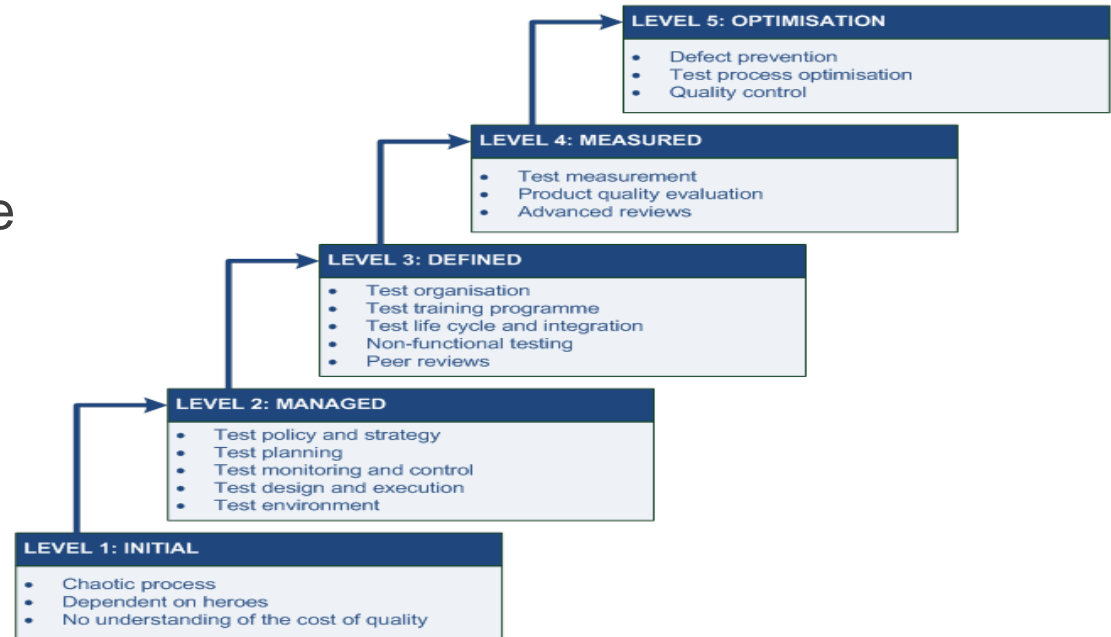- What would the outcome be if I could adopt some Shift Left activities?

How do I measure progress?

- And the potential cost savings

'Shift Left' and Compress Defect Cost Report - Mobile Phone Application

Shift left percentage	20%	Compress percentage	15%	Rqt Defects found in Reviews %	0%				

	Test Level								
Originated In	1 - Reviews / Static	2 - Component	3 - Component Integration	4 - System	5 - System Integration	6 - Acceptance	7 - Production Acceptance	8 - Production Warranty	Total
1 - Requirements	1,925	109	701	1,530	0	1,360	0	0	5,625
2 - System Specification	328	0	0	255	0	1,360	0	0	1,943
3 - Technical Design	340	0	0	255	0	680	0	0	1,275
4 - Coding/Customisation/Build	0	0	255	6,120	28,900	10,880	14,280	107,100	167,535
5 - Data	24	291	1,275	10,200	1,700	12,240	5,440	0	31,171
6 - Environments	0	0	255	3,570	14,450	27,880	3,400	5,100	54,655
7 - Testware	0	36	638	1,020	1,700	11,560	2,720	0	17,674
8 - Implementation/Configuration	0	0	128	1,020	4,250	27,880	10,200	56,100	99,578
9 - External Systems / 3rd Party	0	0	0	0	0	0			
10 - User	0	0	0	0	0	0			
11 - Other	0	0	0	0	0	0			
Total	2,617	437	3,251	23,970	51,000	93,8			
Total %	0.7%	0.1%	0.9%	6.3%	13.4%	24.7		170,045	
Saving	-2,331	1,277	5,749	24,030	4,000	74,1			

Experimentus Software Testing Maturity Survey

- Yearly online survey undertaken by Experimentus

- 250 respondents from across the globe

- Most IT Sectors represented

LEVEL 5: OPTIMISATION
- Defect prevention
- Test process optimisation
- Quality control

LEVEL 4: MEASURED
- Test measurement
- Product quality evaluation
- Advanced reviews

LEVEL 3: DEFINED
- Test organisation
- Test training programme
- Test life cycle and integration
- Non-functional testing
- Peer reviews

LEVEL 2: MANAGED
- Test policy and strategy
- Test planning
- Test monitoring and control
- Test design and execution
- Test environment

LEVEL 1: INITIAL
- Chaotic process
- Dependent on heroes
- No understanding of the cost of quality

TMMI Certification Trends

2012   2013   2014   2015

■ Level 2 ■ Level 3 ■ Level 4 ■ Level 5

Where are we?

2015
2014

2.1 Test Policy and Strategy
2.2 Test Planning
2.3 Test Monitoring and Control
2.4 Test Design and Specification
2.5 Test Environments
3.1 Test Organisation
3.2 Test Training program
3.3 Test Lifecyle and Integration
3.4 Non Functional Testing
3.5 Peer Reviews

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
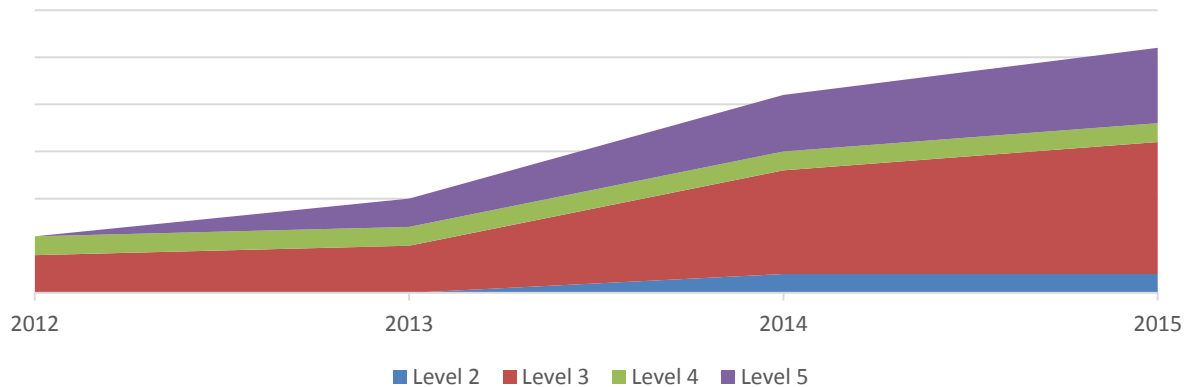
Telecommunications Sector Results

Radar chart with axes: 2.1 Test Policy and Strategy, 2.2 Test Planning, 2.3 Test Monitoring and Control, 2.4 Test Design and Specification, 2.5 Test Environments, 3.1 Test Organisation, 3.2 Test Training program, 3.3 Test Lifecyle and Integration, 3.4 Non Functional Testing, 3.5 Peer Reviews. Scale: 0% to 100%. Legend: 2015, 2014
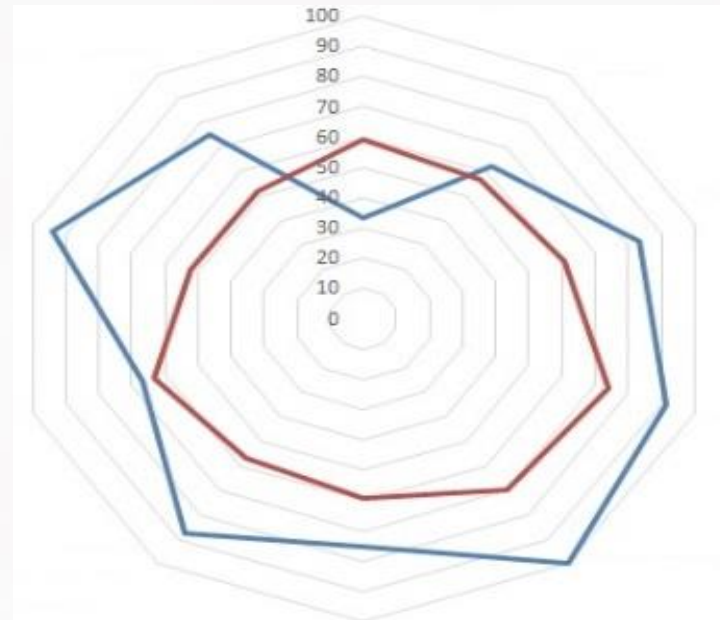
IT Service Provider Sector Results

How do you compare against the industry?

Take our survey and benchmark your company.

100
90
80
70
60
50
40
30
20
10
0

— Sector benchmark
— Your results

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Summary

- 6 types of quality assassins – these aren't the only pitfalls out there but they are the most common and you may recognise at least a few of these in your own organisation.

- The presentation has shown that

  1) better process

  2) people and culture

  3) adoption of tooling and some specific measurement activities

All help to enable you and your organisation go on a better project journey

- The industry is in general improving but testing need to move from being and seen as defect finders to being defect preventers – Shift Left

Thank you

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