Agile Development in Highly Regulated Environments

Nick Clare & Brian Tucker
October 2012
Who are we?

**Nick Clare**
- 26 years’ IT experience
- 4 years’ hands-on agile coaching experience
- Enterprise Agile large-scale transformation

**Brian Tucker**
- 15 years’ IT experience
- 3 years’ agile coaching experience
- Enterprise Agile large-scale transformation
We are a compliant organisation

We’ve done everything we need to prove that we are compliant.

How did we get here?
A Compliant Test Strategy

Our definition of done encompasses everything we need to prove compliance.

How did we get a compliant test strategy?
Our direction and behaviour were compliant

How did we instil direction and behaviour?
Good Governance

Why did we have good governance?

Good governance instilled compliant behavior.
Institutionalised compliance

Compliance was never negotiable it had to be achieved

What’s the secret sauce?
What then, is the secret sauce?

Well… actually, there is no secret sauce!!!
Governance and Discipline

• Well-founded project governance and disciplined ways of working are required
  – Same as any environment
    • Being agile requires a large investment in people and environment
    • Agile changes everything
    • High degrees of rigour and discipline; minimum amounts of bureaucracy
    • Motivated and empowered teams
  – The agile way of working is simply a natural and logical choice for highly regulated and compliance-driven environments
What then, is the secret sauce?

The essence of Agility is to deliver stakeholder value as fully-tested working software in small increments frequently.

- Demonstrate compliance in small increments
- Rehearse the whole play in stages (over and again)
  - Conduct one final dress-rehearsal
  - You’re ready for the first-night opening!
Framework for achieving compliance
Standard agile tools for achieving compliance

- **Definition of Done**
  - We’re only really DONE when we have achieved compliance
  - Factor compliance into the Definition of Done at every stage

- **Acceptance Criteria**

- **Continuous Integration**
  - Demonstrate compliance in small increments
    - OK: Once per release
    - BETTER: Once per iteration/Sprint
    - BEST: Once per User Story / Backlog Item
  - Regression Testing all the time

- **Vertical slicing of backlog items**
  - Progress towards full compliance piecemeal in small increments
  - Stakeholder value delivered frequently and with feedback
    - Stakeholder = Regulatory Group, Feedback = compliance tests
Expensive? You can’t afford not to do it!

- All the right tools are already available in governance and Agile

- Turn adversity and necessity into advantage and confidence
  - Opportunity to benefit from challenge

- View compliance as a way to improve product quality, process and discipline
  - For competitive advantage

- Invest, you won’t get something for nothing
  - Look at the benefits of compliance rather than the burden

- Some safety-critical systems are developed using agile methods
  - Where lives are at risk, not just money
Summary

- No secret sauce

- Make compliance an intrinsic part of the agile way of working, it becomes
  - Achievable,
  - Valuable
  - Cost-effective

- Exploit the strengths of agile with discipline and sensible governance
  - Incremental and iterative

- Embrace the challenge!
Questions and Comments

- How does that all appear to you….easy…or difficult?