AGILE REQUIREMENTS @ SCALE: ACHIEVING A BALANCE BETWEEN GOVERNANCE AND AGILITY

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Agenda

1. Introduction
2. Governance and Compliance
3. Agility
4. Balancing Act: Building Common ground
5. Recommendations
6. Summary
Profile: Large organization developing in-house solutions bound with

- With a heavy IT governance and regulated with compliance rules
- The focus is IT delivery governance
Agility… Everywhere
Development organizations, large and small, are striving for more agility in their software delivery.

We can be agile!

We need you to be agile!

We HAVE to be agile!

We are agile!

Agile? Not sure I understand
Compliance/Governance and Agility... Where to find the balance?

Compliance is generally perceived in the software community as a way to evaluate software process from a formal and document-based perspective.

AND

Many argue that Compliance/Governance and AGILE are just not compatible

Motivation for this presentation:
Is to dispel this argument
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The enterprise IT governance and IT delivery: The old model

- Regulations
- Process, Standards Artifacts, Reports
- Governing Bodies (PMO, QA, EA, Audit, etc...)
- IT Delivery
- Policies, Rules/requirements
- Oversee
- Teams SDLC
- Enforcing
- Technical initiatives, projects
Some common characteristics of regulated organizations

1. Management driven
2. Plan and artifacts driven
3. Contractually-driven
4. Report driven
5. Audit-driven

Governance Risks
- Deadline not met
- Higher cost
- Poorer quality
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Agile Defined

- Team environment: Self-organizing team
- Iterative development approaches
- Focus on value
- Recognize the needs of ALL stakeholders
- Avoid BUFR early

- Lightweight documentation
- “The highest priority is to satisfy the customer”...
- Commitments as late as possible to avoid rework
- Active participation of stakeholders
Agile Requirements

- Continual customer involvement
- Shared vision
- Requirements elicitations
  - Conversations, agile modeling, workshops
- Requirements analysis: Just in time
- Requirements documentation
  - User stories, storyboards, acceptance tests, agile models, acceptance tests
- Formality
  - Improvised
- Iterative requirements planning & management
Governance and agile – a clash of cultures?

<table>
<thead>
<tr>
<th>Governors’ Perception of Agile</th>
<th>Agilists’ Perception of Governance</th>
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</thead>
<tbody>
<tr>
<td>Leaves key decisions until last possible moment</td>
<td>Locks down key decisions too early</td>
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<tr>
<td>Uncertainty and lack of predictability leads to technical debt</td>
<td>BRFU over YAGNI</td>
</tr>
<tr>
<td>A lack of modelling leads to significant rework when software is poorly thought through and does not scale</td>
<td>Comprehensive models slow your development efforts down to a snail’s pace</td>
</tr>
<tr>
<td>A lack of documentation and traceability lead to significant rework</td>
<td>Comprehensive documentation does not always add value</td>
</tr>
<tr>
<td>Agile is just about construction</td>
<td>Following traditional/sequential approaches and high level ceremony is a waste</td>
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<tr>
<td>Agile doesn’t address Enterprise Issues</td>
<td>Silos and barriers between team are impediments to successful development</td>
</tr>
<tr>
<td>Agile teams are difficult to govern</td>
<td>Using improvement approaches that favour “one voice”: managers versus practitioners</td>
</tr>
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Agile vs Regulatory principles: where they conflict?

“Individuals and interactions over processes and tools”

Established processes
Established standards...

“Working software over comprehensive documentation”

Objective evidence
Agile vs Regulatory principles: where they conflict?

“Customer collaboration over contract negotiation”

“Responding to change over following a plan”

Business processes/Business Rules/regulatory requirements

Predictatbility: BUFR, Plan and milestone driven

Planning
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1. Being agile and still compliant: Requires a Disciplined Approach

<table>
<thead>
<tr>
<th>Strategy</th>
<th><strong>Vision, Milestone-driven</strong> approach and <strong>measurements</strong> to prevent inefficient and inconsistent execution. Aim for business <strong>value</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Culture</td>
<td>Have a <strong>hybrid</strong> top-down and bottom approach with an agile governance. Build, actively engage <strong>business</strong> stk. implement process and tools for scaling Agile</td>
</tr>
<tr>
<td>Teams</td>
<td><strong>Self Organization without Discipline is Self Destruction</strong>. Select Practices that address <strong>Business people</strong> (compliance and governance body)</td>
</tr>
<tr>
<td>Tooling</td>
<td>Project <strong>visibility</strong>, <strong>transparency</strong> and <strong>collaboration</strong> are facilitated with automation.</td>
</tr>
<tr>
<td>People</td>
<td>Team members need to be equipped with the right training, be <strong>enterprise aware</strong>. Collaborate with the business. <strong>Trust</strong> and <strong>respect</strong> are the foundation for effective governance</td>
</tr>
</tbody>
</table>
# 2. Being agile and still compliant: Manage complexity with Agility@Scale

<table>
<thead>
<tr>
<th>Compliance requirement</th>
<th>Low risk</th>
<th>Critical, audited</th>
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| Interaction over process and tools | ✓Light process is still a process  |
|                                     | ✓A process that derives value      |
|                                     | ✓Automation that add value (use simple tools) |

| Working software over Comprehensive documentation | ✓Tradeoffs are the “customer” responsibility |
|                                                   | ✓Choose documentation that add value (light weight, quality..) |

| Customer collaboration over contract negotiation | ✓Continuous stk involvement, including compliance officer ensures that the intended user needs are successfully implemented |
|                                                 | ✓Common ground: Signed off requirements backlog |

| Responding to change over following a plan | ✓Agile puts tremendous emphasis on planning, with better process management and improvement |
|                                          | ✓Common ground: architecture road map, feature road map |
|                                          | ✓Long term Sprint road map |
Choose the right agile approach

• Need a more “disciplined” agile approach
• Need to consider automation
• Need an approach that is easy to “scale”:
• Need to tailor a process based on exact needs of the regulation
• Need a set of agile requirements practices that are “scalable”
Agile Scaling Model (ASM)

Agile Development
- Focus is on construction
- Goal is to develop a high-quality system in an evolutionary, collaborative, and self-organizing manner
- Value-driven lifecycle with regular production of working software
- Small, co-located team developing straightforward software

Agile Delivery
- Extends agile development to address full system lifecycle
- Risk and value-driven lifecycle
- Self organization within an appropriate governance framework
- Small, co-located team delivering a straightforward solution

Agility at Scale
- Disciplined agile delivery and one or more scaling factors applies
Disciplined Agile Delivery approach with appropriate governance

The Disciplined Agile Delivery (DAD) process framework is a people-first, learning-oriented hybrid agile approach to IT solution delivery. It has a **risk-value lifecycle**, is goal-driven, **scalable**, and is **enterprise aware**.
Map Regulated activities into the actual agile cycle

Explicit lightweight milestone reviews

- Stakeholder consensus
- Proven architecture
- Sufficient functionality that meets compliance
- Delighted Regulators/auditors
Agile requirements and regulatory compliance

- You may need to adopt other requirements strategies
  - BUT... read the regulations

- Traceability is often a secondary, but important, part of the regulation
  - BUT... read the regulations

- You will likely need to write more documentation,
  - BUT... read the regulations
Agile requirements and regulatory compliance

- You may need to hold reviews
  - BUT… read the regulations
- You will re-enforce the usage of product backlog for scope management
- Keep track of your risks and assess all through the life cycle
- Encourage collaboration with the **relevant** stakeholders throughout a project
- Use tools
Scale and adapt your Agile Requirements practices

- Shared Vision
- Requirements envisioning with high level Use cases /epics
- Requirements Traceability
- User story-Driven development
- Iteration Modeling/Model storming
- Acceptance Test-Driven Development (ATDD)
- Active stakeholder participation
- Risk value life cycle

Other practices

- Team Change Management
- Whole Team
- Continuous and Independent Testing
- Explicit, light-weight milestone reviews
- Daily coordination meetings
- Retrospective
- More…. 
Establish Context and Scope

- Consider your organization scaling factors: compliance requirements
- Establish a shared vision that captures **regulators** real needs
- Consider all work that needs to be done: Defects, Change Requests, Review the work of other teams.
- All of this work needs to be taken into account when creating the backlog.
Requirements at different levels: Refine Terminology

- Epic/Use case
- Feature
- User Story

**Acceptance criteria
Put Information in the right context

- Requirements
- Functional Requirements
- Non Functional Requirements (NFR) which are:
  - Cross-cutting
  - Pertinent to many functional requirements (user stories)
- Other functional requirements
  - Business rules
  - Data requirements
  - User profiles
NFR vs Constraints

- Using a check list to validate Qualities and the development of architectural aspects
- When see a fit, use the story paradigm…

Tip

- Use a check list to discover constraints that will impact the project that is revisited every time the team is estimating, prioritizing…
Automate your requirements process to realize quantifiable savings with Tool Capabilities – Dashboards
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Strategic

Mature or existing projects
Many developers
Complex applications
Need for scalability, and traceability

Disciplined Agile with
Appropriate governance

Mature projects
Growing in complexity
Greater need for coordination, documentation and handoffs

Small team
New projects
Simple application
Co-located
Minimal need for documentation

Regulatory Drivers
Compliance
Governance
Application complexity

Tactical

Agility is Relative
Governance and agile need to be “balanced”

“The tension seems to lie on the axis of adaptation versus anticipation. Agile methods want to be resolutely adaptive: deciding at the “last responsible moment” for when changes occur. Agile methods perceive governance as pushing too hard on the anticipation side: planning too much in advance”. (Abrahamsson, Babar, & Kruchten, 2010)

Governance and agile are equally valid

“I see two parties not really understanding the real issues at hand, stopping at a very shallow, caricatural view of the “other culture”, not understanding enough of the surroundings, beliefs, values of the other one, and stopping very quickly at judging behaviors”. (Kruchten, 2010)

Governance and agile are complementary

“DAD is a delivery LC and framework that cuts through complexity to focus on building software to meet business needs. DAD is superimposed on top of and wraps existing engineering practices, development methodologies and standards”. Scott
References

- **Disciplined Agile Delivery**: A practitioner’s guide to Agile Software Delivery in the Enterprise; Scott W. Ambler-Mark Lines
- **SAFe**: Dean Leffingwell, 2010
- **Rational Innovate 2012 conf**: Achieving better requirements on agile projects: User Stories and beyond; Cherifa Mansoura
- **Adapting Agile requirements practices for devops**: White paper
Questions