KPMG

Agile Internal Audit

White paper on working Agile within Internal Audit Functions

Part I: Introducing working Agile

January 2019

Agile
Internal Audit

Complex, dynamic and interactive...

...are key words for the continuously changing organizational environment. Change is the only consistent factor and the number of changes is increasing rapidly. This requires organizations to adapt an innovative way of working and mindset in order to remain successful.

We have also seen the same necessary shifts taking place within the field of Internal Audit in recent years. From working in a reactive to a more proactive way, from giving assurance to providing advice and insight to organizations, but also an increasing number of Internal Audit Functions (IAF) started dealing with agile. It started with auditing of agile (IT) processes which later transformed into the IAF applying the Agile principles while planning and during the executions of audits. Some of the IAFs in the Netherlands are leading in applying the Agile principles in their work while others are still experimenting.

KPMG has summarized its international customer knowledge and experiences with Agile auditing in this (two-part) White Paper.

Part 1

Provides insight into the history, the context and the added value of conducting Agile audits within IAFs.

Part 2

Provides practical guidelines to aid an IAF into applying the starting points of Agile auditing in the design of the IAF, in the planning and during the execution of the audits.

Part 1

- Origin of agile
- Traditional Waterfall vs Agile auditing
- Agile and Internal Audit
- Main Agile concepts
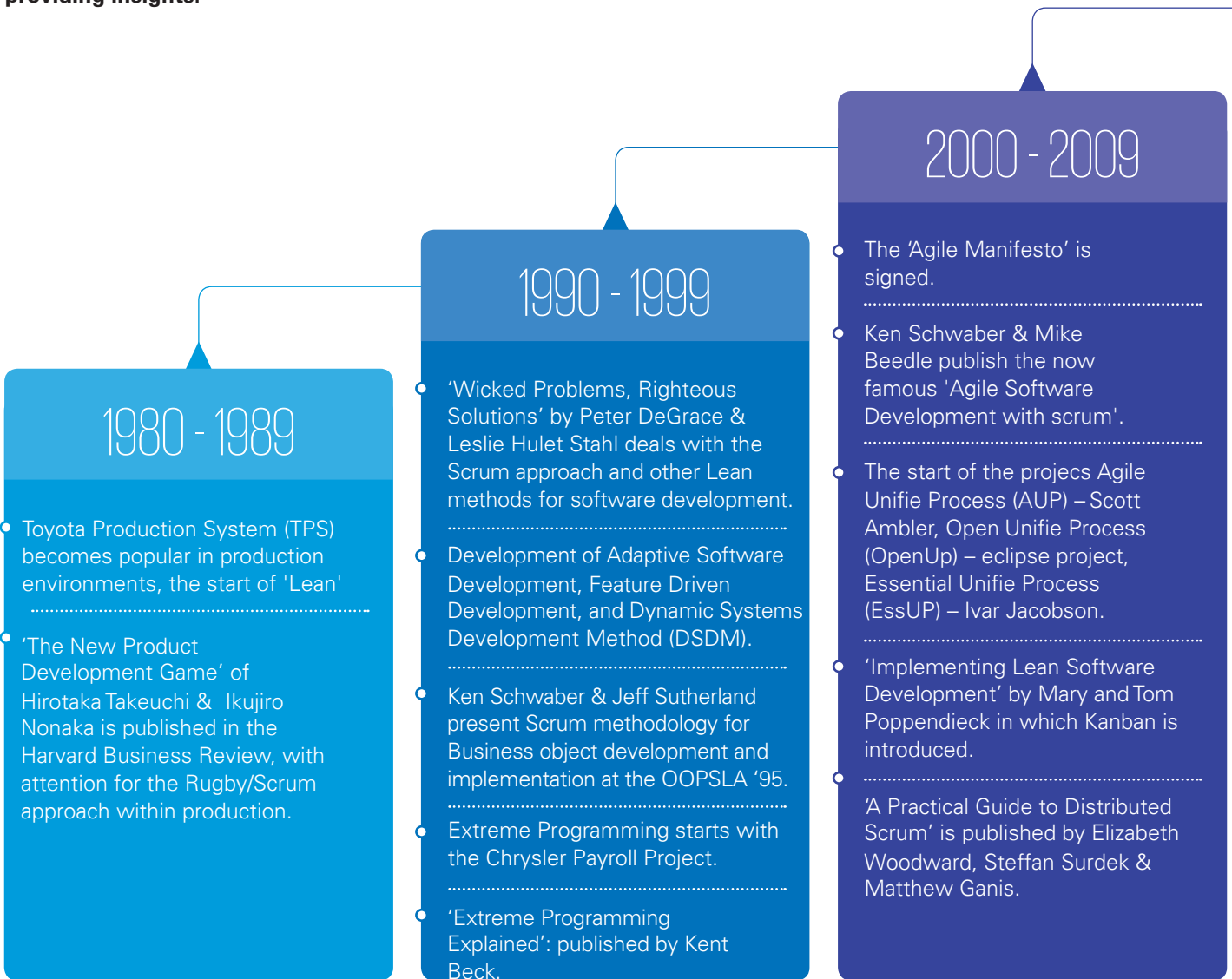- Agile and the IPPF
- Agile Internal Audit Maturity Model

Part 2

- Agile approaches
- Impact of Agile on IAF
- Performing Agile audits
- Challenges and opportunities of Agile audits
- Case: Agile auditing by front-runners
- Agile Do's and Don'ts

Origin of Agile

Agile is a collective name for methods based on the principles of the Agile Manifesto. Originally it was used in software development. Today, it is being used in all functions of an organization including the second- and third line functions.

The objectives of applying the Agile principles within an IAFs are: **increasing audit quality, short audit cycles, more interaction with the auditee and providing insights.**

2000 - 2009

The 'Agile Manifesto' is signed.

Ken Schwaber & Mike Beedle publish the now famous 'Agile Software Development with scrum'.

The start of the projecs Agile Unifie Process (AUP) – Scott Ambler, Open Unifie Process (OpenUp) – eclipse project, Essential Unifie Process (EssUP) – Ivar Jacobson.

'Implementing Lean Software Development' by Mary and Tom Poppendieck in which Kanban is introduced.

'A Practical Guide to Distributed Scrum' is published by Elizabeth Woodward, Steffan Surdek & Matthew Ganis.

1990 - 1999

'Wicked Problems, Righteous Solutions' by Peter DeGrace & Leslie Hulet Stahl deals with the Scrum approach and other Lean methods for software development.

Development of Adaptive Software Development, Feature Driven Development, and Dynamic Systems Development Method (DSDM).

Ken Schwaber & Jeff Sutherland present Scrum methodology for Business object development and implementation at the OOPSLA '95.

Extreme Programming starts with the Chrysler Payroll Project.

'Extreme Programming Explained': published by Kent Beck.

1980 - 1989

Toyota Production System (TPS) becomes popular in production environments, the start of 'Lean'

'The New Product Development Game' of Hirotaka Takeuchi & Ikujiro Nonaka is published in the Harvard Business Review, with attention for the Rugby/Scrum approach within production.

2010 - present

- Agile application in organizational units other than IT

....

- From improvement projects outside the line to continuous improvement within the 'products'

....

- First pilots in the field of Agile auditing in the Netherlands

Recent developments & future

- Agile application for the entire organization

....

1) Agile within the 1st Line Of Defense

....

2) Agile within the 2nd LOD (a.o. risk, compliance)

....

3) Agile Internal Audit

....

- In the future, a large number of IAFs will apply Agile auditing with varying degrees of maturity (see also the Agile IA Maturity Model on page 10-11)

Agile (Auditing) timeline

Traditional Waterfall vs. Agile

The founders of the Agile methodology trace back to the last century, but their recognition and application is still under development.

WinstonRoyce introduced the waterfall method in 1970, mainly to show how it should not be done. He was in favor of the *do-it-twice* approach, in which the focus is on splitting the project is small parts and acting on these. Paradoxically, since then most of the projects have been executed according to the waterfall method.

(Internal) audits are also carried out on the basis of the waterfall method. An audit exists of the following six phases: planning, preliminary research, fieldwork, reporting, evaluation and follow-up. Often, and based on the current interpretation of the Internal Audit standards, the next step phase will only be started when the previous one is completed.

Standard 2240 requires an approved work program prior commencing the field work. At the same time this Standard also offers space for adjustments to the working program during this field work phase of the audit.

When performing an Agile audit, this will be the rule rather than exception. This requires an audit manager who approves all changes to the working program (and the reprioritization on the backlog).

Working Agile is certainly not something that all organizations should apply. In this respect, the environment and culture of the organization must always be taken into account. It is important to realize that the current waterfall method is not necessarily the best solution for the IAF. For this reason, it is valuable to get acquainted with and to open up to newer ways of thinking and working such as Agile auditing.

This publication shows that in addition to the six audit steps, which is applied by almost all IAFs, the integration of Agile methods can help increasing the added value of the IAF and the internal control of organizations.

Distinctive features of Agile compared to the waterfall method are: interactive, flexible and learning ability.
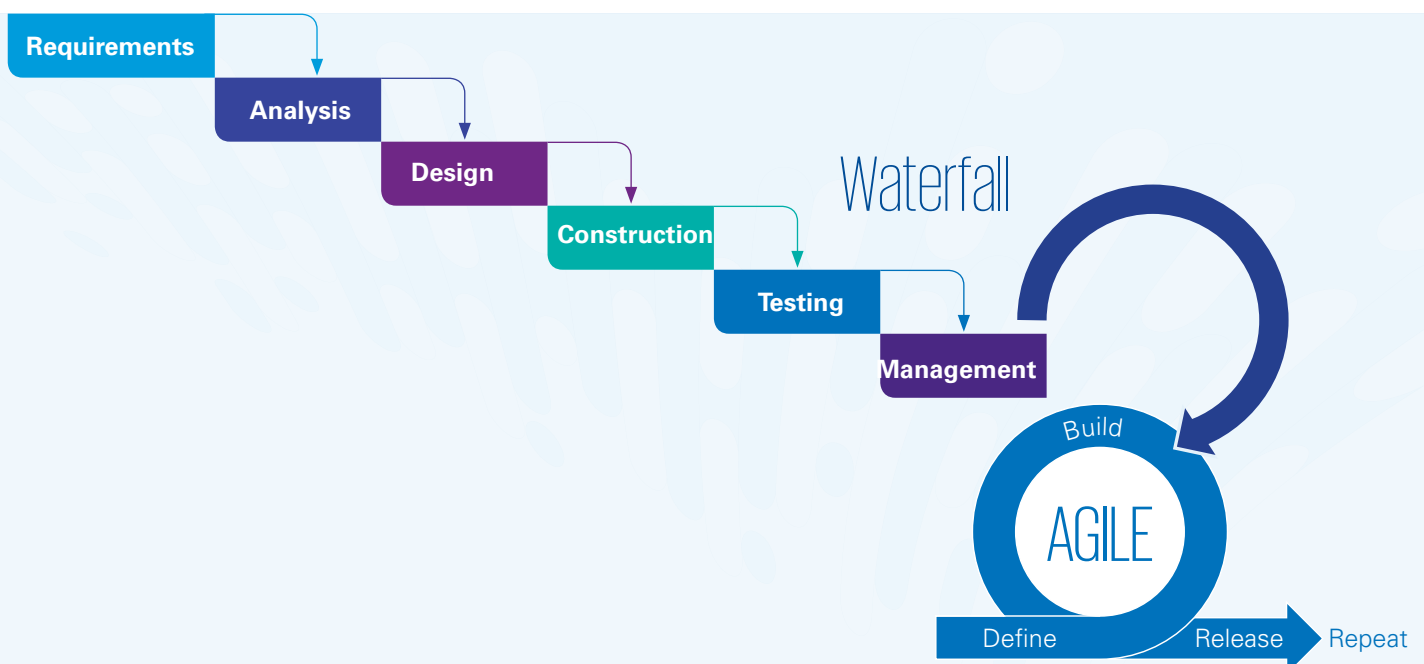
Agile and Internal Audit

The **Agile** philosophy is based on four principles:

- Individuals and Interactions over processes and tools

- Working software is more important than comprehensive documentation

- Customer collaboration over contract negotiation

- Responding to change over following a plan

Agile Internal Audit is the mindset and method that an IAF uses to focus on the needs of stakeholders; accelerate the audit cycles, providing timely insight and reduce the waste of resources. By applying an Agile method, the productivity and added value of the IAF can be increased and the lead time of an audit can be reduced.

The key features of an Agile Internal Audit:

- Other mindset of the auditors
- The approach of the audit is flexible
- The use of day starts
- Increased involvement of the auditee
- Continuous coordination of the product (report)
- Applying Agile principles that are relevant

KPMG's Agile IA Manifesto

1. **Value creation** for the client by focusing on the (Agile) result.

2. Continuous optimization of the method by **welcoming changes.**

3. **Collaboration and multidisciplinary teams** as a basis for the added value.

4. **Short iterations** as an aid for timely adjustments in an audit.

5. **Flexible and dynamic Internal Audit Planning** as a result of continuous risk monitoring.

Scrum, Lean and Agile, what does it mean?

Scrum – a flexible way to make a product. Working in multidisciplinary teams that deliver working products in short sprints, with a fixed length of one to four weeks.

Lean – a management philosophy in the field of operations management that aims to realize maximum value for the customer with as little waste as possible.

Agile – an iterative method to get wishes and demands above the surface and to continue to meet the ever-changing requirements.

Key Agile concepts

To aid in developing a better picture of Agile auditing, a number of concepts from Agile are explained below.

Audit backlog

An overview which is constantly updated with a dynamic determination of the audit (sub)topics. This offers flexibility compared to a static Internal Audit Plan (for example, one year). The items on the Audit backlog are abstract regarding the scope, the process and the timing. When the IAF and its stakeholders (e.g. the board or the AC) redefine the audit needs, the item will be placed higher on the backlog until it is ready to be audited. Drivers within this process include the continuous risk analysis, the needd of stakeholders but also elements such as the date of the last audit in order to obtain a periodic cover of the total audit universe.

Definition of Ready (DoR)

An item on the Audit Portfolio Backlog is 'DoR' when the IAF and the stakeholders agree on what will be audited; about what the audit should achieve, the expected added value and the requirements for the auditee.

Audit Sprints

During the execution of the audit, the item is unlisted from the backlog and the various scope elements will be divided into defined auditable subjects, so-called sprints. Sprints are periods in which an element has to be completed, for example 2 to 4 weeks. Sprints provide a process, structure and rhythm for the work. The time period - in which the audit team has to fulfill an element - must ensure a tight deadline, without causing stress. The process is continually optimized by means of interactive (weekly) sessions. At the end of each sprint, the IAF organizes a demo in which the observations are presented to the auditee. This demo creates support for observations and looks for possible solutions.

Reduce waste

Within agile auditing is the reduction of waste one of the core concepts. Waste can express itself in various forms: waiting for something to continue (e.g an auditee which does not deliver), unnecessarily many movements (e.g. travel), processes are not logically described (e.g. too much time neccesary for preparation) or producing excessively (e.g. unnecessarily long audit reports).

Daily Stand-up

The daily stand-up is a daily meeting of the audit team of up to 15 minutes. The purpose of the stand-up is to coordinate the work and plan the next 24 hours. During the stand-up meeting, everyone answers 3 questions:

1. What have I achieved since the previous stand-up?
2. What will I achieve today?
3. Do I expect obstacles, and can the audit team help me with them?

The aim of the audit sprint is always kept in mind during the stand-up. This stand-up makes it more likely that the goal of the audit sprint will be achieved.

Definition of Done (DoD)

DoD describes the output of the audit sprints. It can be expressed in a degree of certainty, a list of observations, risks or recommendations - depending on the wishes of the stakeholders and the IAF. A DoD helps to indicate the moment a sprint has been completed from the perspective of the audit product owner. If the overall DoD audit is completed, the audit is finalized.

Sprints Retrospective

Within an Agile audit it is a common to organize a retrospective at the end of each sprint, in which all issues in the audit process are discussed and solved where possible. Here, it is important that you create a safe environment within the audit team, where everyone can name the 'waste' without having any consequences, otherwise the issues will not be on the table.

Agile and the IPPF

Within the IA standards, a distinction is made between the standards concerning the design of the IAF (Attribute Standards 1000 series) and the standards for performing audits (Performance Standards 2000 series). The application of an Agile method within an IAF has an impact on compliance with the IIA standards. Some examples:

1210

▶ Professional competence. Working with Agile methods requires different knowledge and skills from the internal auditor. For example, when working with a scrum method, at least one specialist (the scrum master) is required to manage the processes into the right direction. In addition, the understanding of other roles and role resistance is also of great importance.

1300

▶ Quality assurance and improvement program. The system must assess the quality of the IAF and identify improvements. This might be the biggest challenge for Agile auditing, since every audit needs to be adequately documented since an independent reviewer should be able to re-perform the audit based on the documentation. It is important to ensure that the recording and approval of the work is carried out properly at all times. Agile auditing does not dismiss the IAF from its obligation to record a good audit trial.

2010

▶ Planning. Within an Agile way of working, the way in which the goal will be achieved is not predetermined. The possibilities to change the annual audit plan (or: backlog with objects to be audited) require the attention of the IAF with regard to the risk-based planning so that the prioritization of the audit backlog can be determined.
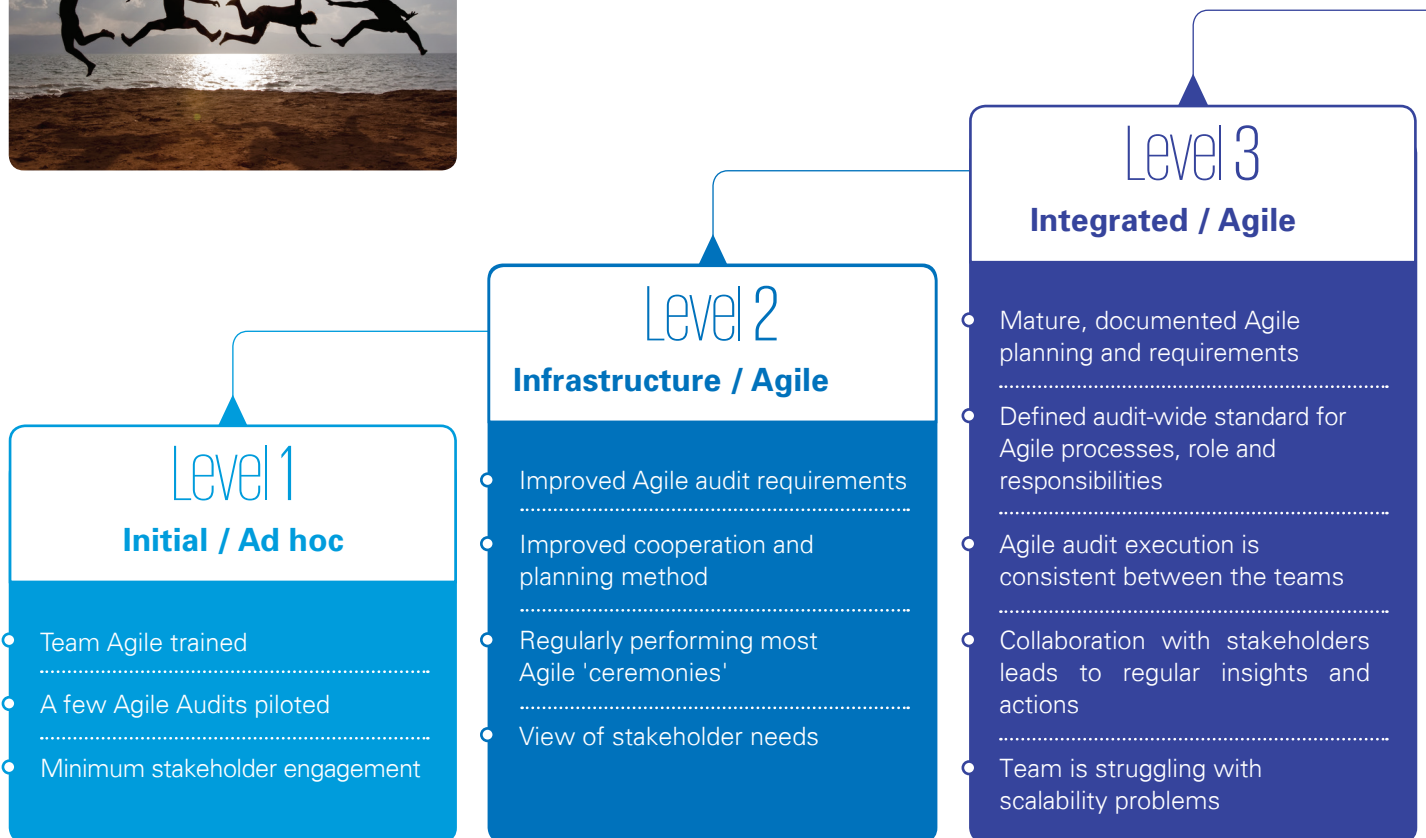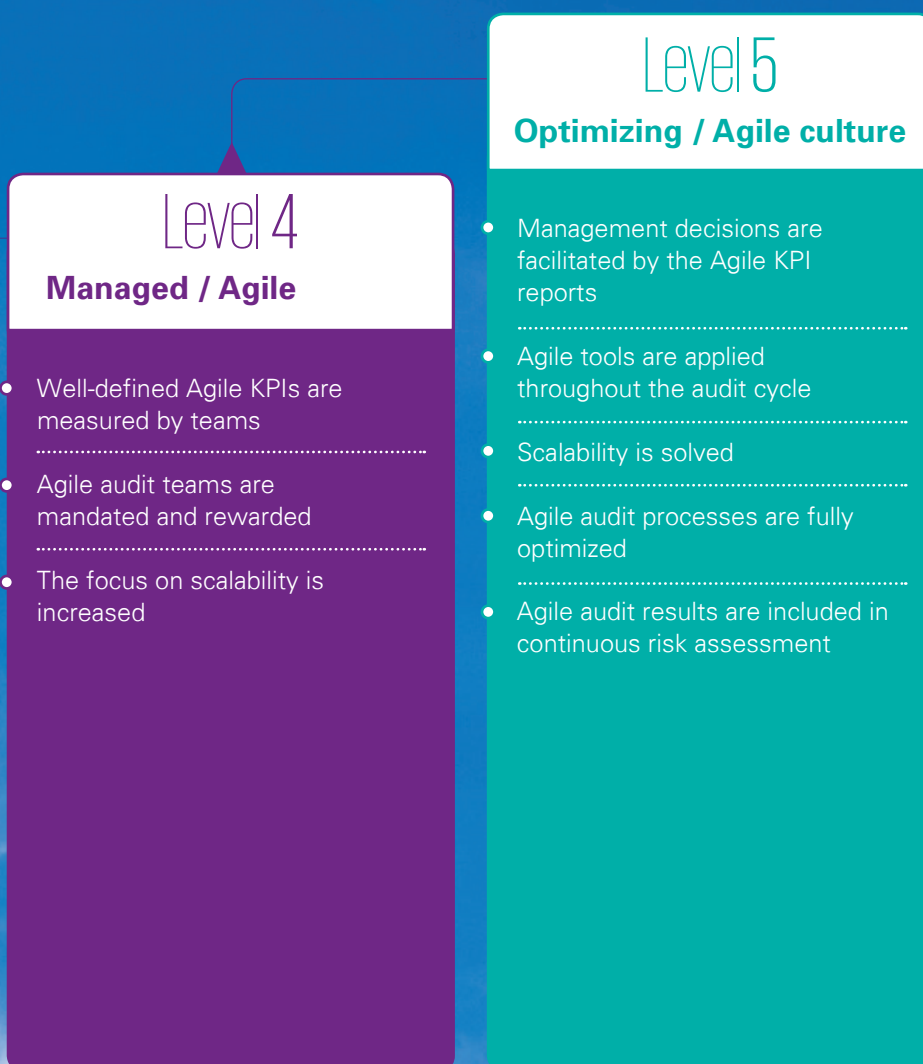
2200 / 2240

▶ Planning the assignment / preparation of Work Program. A flexible way of working is an important characteristic within an Agile audit. For example, the use of sprints to perform an audit: splitting the scope into sub-products, more iterations and shorter lead times instead of a fixed sequential schedule. Changes of the scope or working program must be approved by the CAE or a delegate.

2330

▶ Documenting information. Conducting an audit via an Agile method is likely to result in a more efficient way of documenting how the conclusions have been established. To meet the standards, it is important to have at least an audit trail that shows how the findings and the conclusion have been established. (see also 1300)

Agile Internal Audit – Maturity Model

Level 1
Initial / Ad hoc

- Team Agile trained
- A few Agile Audits piloted
- Minimum stakeholder engagement

Level 2
Infrastructure / Agile

- Improved Agile audit requirements
- Improved cooperation and planning method
- Regularly performing most Agile 'ceremonies'
- View of stakeholder needs

Level 3
Integrated / Agile

- Mature, documented Agile planning and requirements
- Defined audit-wide standard for Agile processes, role and responsibilities
- Agile audit execution is consistent between the teams
- Collaboration with stakeholders leads to regular insights and actions
- Team is struggling with scalability problems

Level 4

Managed / Agile

- Well-defined Agile KPIs are measured by teams
- Agile audit teams are mandated and rewarded
- The focus on scalability is increased

Level 5

Optimizing / Agile culture

- Management decisions are facilitated by the Agile KPI reports
- Agile tools are applied throughout the audit cycle
- Scalabity is solved
- Agile audit processes are fully optimized
- Agile audit results are included in continuous risk assessment

Agile Internal Audit – Maturity Model

(with scales according to the IIA Ambition Model)

In summary, why is Agile audit relevant for the IAF?

Focus on continuous **prioritization** of focus areas and thereby providing **relevant insight**.

Shorter audit cycles and faster delivery of (sub) product.

Increased **audit quality**.

More **interaction** between the audit team and the auditee which improves the management of expectations.

How?
Part II, to be continued

Contacts

Jonathan Ho
Head of Internal Audit,
Risk & Compliance
Head of Enterprise Market
T: +65 6411 8336
E: jho1@kpmg.com.sg

Tea Wei Li
Partner, Risk Consulting
T. +65 64118114
E. wtea@kpmg.com.sg

Thanks to contributions from:

Svetlana Vrubleuskaya and **Jacco Pols**