Data-Driven Agile Auditing:

The Ultimate Guide for Chief Auditing Executives

How to use data to turn your auditing team into Agile experts

How can Chief Auditing Executives prioritize risk smarter and faster?

How can they take advantage of the data at their fingertips to get it done?

The answer? Agile auditing driven by your own ERP data.

This is the resource guide for you, if you want to continuously assess risks and deliver high-value reporting to stakeholders with the power of data analytics.

Table of Contents

Table of Contents

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Data-Driven Agile Auditing for Chief Auditing Executives

If you're reading this guide, it's probably because you have a similar problem as most government municipalities—trying to do more with less while mitigating risk.

Before we dive into data-driven agile auditing, let's ask a few questions to make sure this guide is right for you:

- Are you frustrated with the pacing of your projects?
- Do you get annoyed when projects fail to adapt to change?
- Are your stakeholders asking you for more insights?
- Do your stakeholders want data to back up those insights?

As an internal auditor, you're getting the job done, but you know things should be optimized. How do you do that? The answer? Data.

But it's not enough to *have* data. You need to know what to *do* with it. When it comes to working with data though, you might have some concerns.

We have analysts, and we work with data every day. Why do we need agile auditing?

Your team knows your data better than anybody, but you may be spending more time cleaning and understanding it when you could be focusing on generating actionable insights.

What Chief Executives Need to Know About Agile Auditing

As government municipalities across the nation begin to adopt new technologies like enterprise resource planning (ERP) systems, you need to be proactive about mitigating risk. Knowing where, when, and how to allocate resources becomes top priority.

New technology brings new data and lots of it. Trying to understand it becomes a full-time job (or two).

And you don't have time for that.

Data-driven Agile auditing builds a path to better plans, better projects, and better insights.

This isn't a single framework. It's a philosophy, a process, and a professional practice that can be adapted to any internal auditing projects based on the needs of your stakeholders and data.
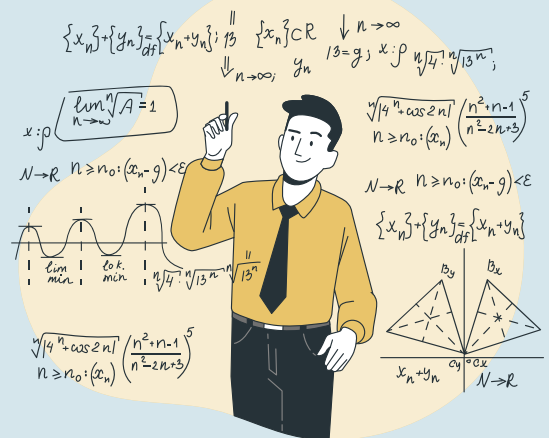
If your team is spending its day drowning in data (or ingnoring it with all those to-do tasks), time is being wasted. With data-driven Agile auditing, your team can continuously assess risks, test controls, and measure improvements. You'll be able to deliver high-value reporting to stakeholders: elected officials, councilors, and of course, citizens. Keep reading if you want to make the most of the data from your ERP system, driving efficient process improvements while you do it.

The Agile Manifesto

At the heart of Agile is communication and flexibility among team members and stakeholders. Rather than working through long process paths, projects are evaluated continuously, allowing teams to respond quickly.

Agile isn't a process. It's a philosophy.

It started in 2001 in Snowbird, UT when 17 software developers sat down to talk about how they could develop software more efficiently and effectively. They felt frustrated that companies spent too much time on planning and documenting cycles and not enough meeting the needs of their end-users.

As an internal auditor, you're getting the job done, but you know things should be optimized. How do we do that? The answer? Data.

We've (slightly) adapted the Agile Manifesto for your audit team and government municipalities.

We're uncovering better ways of building projects by doing it and helping others do it. Through this work, we have come to value:

An Agile Manifesto for Internal Auditors

- Individuals and interactions more than process & tools
- Actionable insights more than excessive planning
- Stakeholder collaboration more than stale reporting
- Responding to change more than following a plan

In action, you evaluate projects continuously so you can deploy your team as quickly as risk changes–all while keeping your stakeholders up-to-date. This cycle centers stakeholder satisfaction in the auditing process.

The Difference Between Agile and Scrum

A lot of the time, these two concepts are used interchangeably—but they shouldn't be. As we just discussed, Agile is the philosophy. Here we'll learn that Scrum is an Agile framework. Scrum is short for "scrummage," which is a rugby term where players pack closely together with their heads down to gain possession of the ball.

The Three Parts of Scrum: Sprints, Artifacts & Roles

Sprints

These are a series of timelines and plans your team works with—and each one typically lasts two weeks. Each Sprint begins with an up-to-date plan, has a clear goal for two weeks, uses daily stand-up meetings to keep the team accountable, and ends with a Retrospective.

What is a stand-up meeting? These are 15-minute meetings where team members quickly share what they did yesterday, what they're doing today, and any problems impeding their work.

What's a Retrospective? These are meetings at the end of each Sprint where team members can discuss what went well with the project and what can be improved for the next iteration.

Artifacts

This is where the work gets done. Each auditor is responsible for bringing something back to the table that contributes to the project. In the following section, we break down Artifacts by Sprints, giving you actionable guidance about implementing data-driven Agile auditing. What these look like depends on the project, which is what makes it so Agile!

The Difference Between Agile and Scrum

The Three Parts of Scrum continued

Roles

Your team is a team, and each team member has a responsibility:

- Stakeholders: the people who want the end-report
- Product Owner: the person with the 10,000-foot view
- Scrum Master: the person who knows the process
- Developers: the right people doing the right work

Sometimes these don't map well onto government municipality internal audit teams, so we've adapted them for you:

- Stakeholders: not a whole lot of change here
- Chief Audit Executive/ Audit Director: that's you, the person with the 10,000-foot view, who knows knows what each team member is doing
- Auditors: these are the "developers", the ones diving into risk assessments, controls, and tests

What's that look like for your internal audit team?

The Chief Audit Executive (CAE) meets with the Stakeholders to learn about the strategic priorities of the organization or municipality. Then they can review their data coming from the ERP system, pinpointing the areas with the most risk as they relate to those larger strategic initiatives. Every two weeks, the CAE is running Sprints with the internal audit team, where they can create controls to ensure risks are being mitigated.

When you combine your internal auditing with data-driven Agile processes, you save time, resources, and a few headaches.

The Difference Between Waterfall Projects and Agile Auditing

Many government municipalities struggle with the same problem: mitigating risk while maintaining smooth operations. Sometimes, the way we approach a problem only makes it worse (or at least not as effective as it could be). One of those outdated approaches we cling to? The Waterfall Approach.
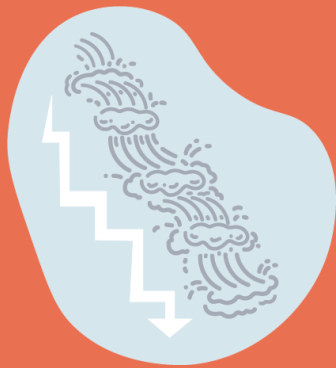
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With the Waterfall Approach, your internal audit team completes a risk assessment once a year, makes a plan, and then sticks to that plan to completion.

When plans are made, they are rarely changed. Stakeholders aren't involved. Projects take months to complete. By the time the team returns to the project, your reports are stale!

The goal is completion. A deliverable. The audit report itself.

In a data-driven Agile environment with a Scrum framework, teams work in two-week Sprints throughout the entire project. Each Sprint starts with up-to-date audit plans where stakeholders have collaborative input. Each Sprint ends with up-to-date audit reports, allowing the team to adapt along the way. **Data-driven Agile auditing empowers internal audit teams to focus on what matters, completing smaller-scope audits that address the right risks at the right time.**

The Importance of Human-Centered Design

All government municipalities have the same thing in common: We're humans helping other humans. It makes sense to put human experience at the center of what we do.

To have a human-centered approach is to ask a simple question: **"What does my audience need?"**

Rather than wait for a meeting that risks your stakeholders leaving frustrated, **ask them throughout the process.**

When you invite your stakeholders into your planning process through client interviews and focus groups, **your projects take on new life and new meaning.**

The Three I's of HCD

Inspiration • Ideation • Implementation

Inspiration is all about learning directly from your stakeholders with questions. Ideation involves evaluating opportunities for improvement with fieldwork, and implementation is bringing solutions to life with deliverables.

Without this human-centered design approach, agile auditing simply wouldn't work.

The reason all of this works is because you can respond quickly to your stakeholder's needs. And the only way to discover those needs is to communicate with other stakeholders–**other humans.**

How Audit Teams can Take Advantage of Data-Driven Agile Auditing

So that's great. Now we're all experts in data-driven agile auditing, right?

Not yet, but it's not as complicated as you think.

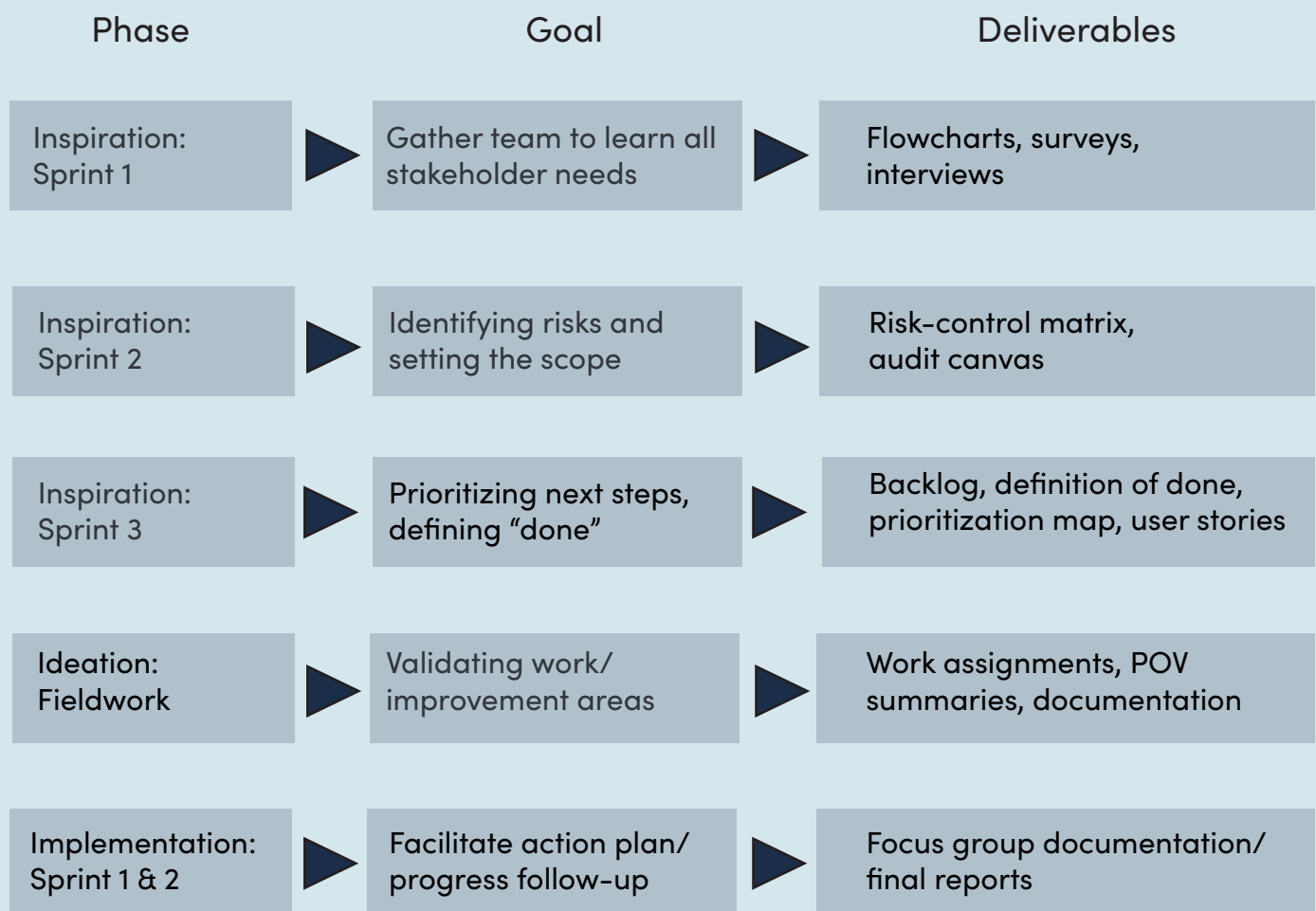So far, all we've done is explain the concepts.

In this next section, we will explore:

1. Agile, Scrum, and human-centered design coalescence
2. Best practices
3. Phase-specific, key questions
4. Deliverables that equal success

Putting It All Together: A Quick Guide

Below is a model framework of how government municipalities can apply Agile auditing.

Phase		Goal		Deliverables
Inspiration: Sprint 1	▶	Gather team to learn all stakeholder needs	▶	Flowcharts, surveys, interviews
Inspiration: Sprint 2	▶	Identifying risks and setting the scope	▶	Risk-control matrix, audit canvas
Inspiration: Sprint 3	▶	Prioritizing next steps, defining "done"	▶	Backlog, definition of done, prioritization map, user stories
Ideation: Fieldwork	▶	Validating work/ improvement areas	▶	Work assignments, POV summaries, documentation
Implementation: Sprint 1 & 2	▶	Facilitate action plan/ progress follow-up	▶	Focus group documentation/ final reports

In the next section, we'll break down each phase with **key questions you and your team need to be asking with a focus on deliverables.**

The Inspiration Phase

In these early Sprints, you want to learn directly from those involved in the process. That means listening to your stakeholders and communicating those ideas to your internal audit team.

Key Questions for Chief Auditing Executives

- Who owns the process in the municipality?
- What is my data telling me?
- How do we test the effectiveness of our controls?

Key Questions for Auditors

- What data is being produced in this process?
- What controls can be put into place to mitigate risk?
- When is a work assignment considered "done"?

Tips for Key Deliverables

No matter how well everyone knows the process, write it down using a flowchart. This allows you to take a "fresh look" at the process according to all stakeholders. Visualizing the process enables your team to pinpoint risk areas where mistakes and fraud are more likely.

"Draw a flowchart for whatever you do. Until you do, you do not know what you are doing, you just have a job." (W. Edward Deming, *Total Quality Management*).

Risk Control Matrix

Once your team has investigated the process, you can begin identifying risks. Using a risk control matrix allows you to prioritize your resources.

You need to be able to see where those risks are the most likely, and the best way of doing that is by letting your data guide you where to go.

Audit Canvas

An audit canvas is your best friend in data-driven Agile auditing. It serves as the internal blueprint for a project and an early deliverable for your stakeholders.

It's so important, we've provided a template you can use for your own Agile Sprints.

Check it out here.

Definition of "Done"

One of the key aspects of data-driven agile auditing is clear communication. That's more than just being clear about what needs to get done, but being clear about what it means when you say "done."

Help your team know when it's okay to stop. Too often we let ourselves get lost in a project or task realizing too late that we've wasted our time.

For every work assignment, have a clear definition of when the tasks can be marked complete.

User Stories and Epics

User Stories

A user story is an informal, general explanation of a requirement written from the perspective of the stakeholder. Its purpose is to articulate how the requirement will provide value to the stakeholder.

"As a [persona], I [want to], [so that]."

Epics

User stories can be organized into "Epics". Your team may identify several Epics, so it's important to have an actionable plan for each one. Epics will include specific tasks, definitions of "done," and deadlines.

At the end of the Inspiration Phase, you will know where risks are highest and the tasks needed to plan, control, and test improvements. The idea, is that everything your team does is for a reason attached to a stakeholder need.

An Audit Canvas
A Checklist of Questions For Chief Auditing Executives

Use this guide to create your own audit canvas for your internal audit team. Each section has a series of important questions that need solid answers to make the most of data-driven agile auditing.

- [ ] 1. What's the goal?
  - In two sentences, how would you describe this project?

- [ ] 2. What's the project?
  - What will this project accomplish?
  - What do you need to accomplish it?

- [ ] 3. Why this project?
  - Why are you worried about this risk?
  - What questions will need to be answered by the end of the project?

- [ ] 4. How does this fit into the bigger picture?
  - How does this align with your municipality's strategic initiatives?
  - What will prevent the auditing team from achieving those objectives?
  - What preliminary issues have stakeholders already identified?

- [ ] 5. What's the plan?
  - How would you break this up into Epics?
  - How many sprints will the project need?

- [ ] 6. What's the timeline?
  - How long will each Sprint take?
  - What are the dates and deadlines for those Sprints?

- [ ] 7. Who are the key stakeholders?
  - Who will be the ones receiving the final POV summaries?
  - Who is directly impacted during this process?

- [ ] 8. Who else is interested in this project?
  - Who else might be impacted by these investigations and findings?

- [ ] 9. Who's working on the project?
  - Who's my team?
  - What are their roles and responsibilities?

The Ideation Phase

By harnessing your data, your team can select which Epic needs attention first. Each Epic has its own two week Sprint where auditors use the findings from the Inspiration Phase to identify opportunities for design or process improvements.

Key Questions for Chief Auditing Executives

- How many Epics have we identified, and which have the highest risk?
- How does this Epic resolve a stakeholder need?
- How do we communicate the effectiveness of our controls?

Key Questions for Auditors

- What steps should I be documenting or summarizing?
- How does this task contribute to the Epic?
- What problems will prevent you from completing tasks in the Epic?

Tips for Key Deliverables: POV Summaries

A POV should summarize the relevant insights gained from observations and stories. It is a condensed understanding of the area with highlights to relevant insights of the state of risk and controls.

Communication is one of the reasons data-driven Agile auditing is so effective as a framework. As you communicate with your team and your stakeholders, you need to speak *with* them, not *at* them.

Rather than providing a report filled with jargon or some choppy documentation, your team should create a Point-Of-View summary, which they can share during Stand-Ups and Retrospectives. Remember, you'll have as many Sprints in the Ideation Phase as the number of Epics you identify during the Inspiration Phase!

The Implementation Phase

By this point, your team will have identified several Epics, prioritized them by risk, researched improvements, created controls, and tested those controls for effectiveness. That's a lot of information.

Implementation generally takes two Sprints: gather the findings and present them.

It's your job as the Chief Auditing Executive to facilitate all of this information from your internal audit team and present it to your stakeholders.

Key Questions for Chief Auditing Executives

- How did your team approach and resolve the problem?
- How do you fit those findings into a larger narrative about mitigating the highest risks?
- How can you communicate findings to stakeholders?

Key Questions for Auditors

- What else should be included in your documentation?
- What are the most important things the stakeholder needs to know?
- How can you present your findings to the team?

Tips for Key Deliverables

- Use those User Stories to keep your message on point.
- Support your findings with your data. People love data.
- Keep the language free of jargon, and if you need to use it, define it.
- Present the process as a narrative. People love stories too.

With data-driven Agile auditing, your team can create timely reports addressing the specific needs of your stakeholders.

Keep reading to find out how ThirdLine helps government municipalities harness their data.

How to Work Smarter (Not Harder) with Data

Knowing how to be Agile is one thing. Knowing where and when to be Agile is something else entirely. We've spent all this time focusing on the process. In Agile auditing, the key is auditing only what matters. How do you know what matters?

Data.

Do you feel overwhelmed by the amount of projects that could be done?

Are you finding it difficult to prioritize which projects need immediate attention? Or maybe the most attention?

If you feel like your projects are stalling, it's time you use your most powerful tool: your data.

Let's get into what makes all of this really Agile.

The Value of Data Analytics

Internal audits are all about mitigating risk, and your data is telling you where your biggest risks are. The problem? It's buried under a whole lot of other data. Navigating data without analytics is like trying to navigate a new city without a map. Data analytics isn't just a map–it's a GPS system.

Use data analytics to transform your traditional audit projects into Agile ones.

Instead of...	Use Analytics to...
Setting an uninspired audit plan in stone	Determine which areas and processes need your attention
Relying on limited information/ sampling	Expedite analytics, testing internal controls and identifying risk
Starting at square one with every audit	Assess improvements with data-driven recommendations in order to iterate in the next audit project

If you're reading this and have the following questions running through your head at any point in the fiscal year, ThirdLine is here to help.

- **What are our highest risks in our processes?**
- **Are existing controls sufficient to mitigate risks?**
- **How do I track if the controls are even working?**

You can use data analytics to transform your traditional audit projects into Agile ones. By reviewing large data sets, ThirdLine analytics identifies trends and anomalies so your team can focus on other priorities.

Pinpoint Your Pain Points

Your data is made up of thousands of connected tables and fields with just as many dimensions and measures. Understanding that data is a massive undertaking, and audit teams might miss something important because there's just so much data.

An analytic is written in a coding language designed to ask your data all kinds of questions! No more guessing or following your gut. You can follow the evidence because our analytics identify those patterns for you.

Data analytics enables internal audit teams to see and mitigate risk before it becomes a costly fraud scheme.

Here's an example of just one of the 400 analytics used by ThirdLine:

Employee = Approver

Using the data from your ERP system (things like transactions, workflow, and history tables), this analytic flags when an employee creates and approves the same translation on a P-Card.

This raises a red flag indicating inadequate Separation of Duties in the P-Card approval process.

How ThirdLine Streamlines Agile for Government Municipalities

What is ThirdLine?

ThirdLine is an audit *and* a continuous monitoring platform for government organizations to identify and mitigate risk.

Our platform is powered by 400+ analytics that automate your ERP system data and flag high-risk transactions for review.

Our analytics update across our platform and show you what you need to know in interactive reports.
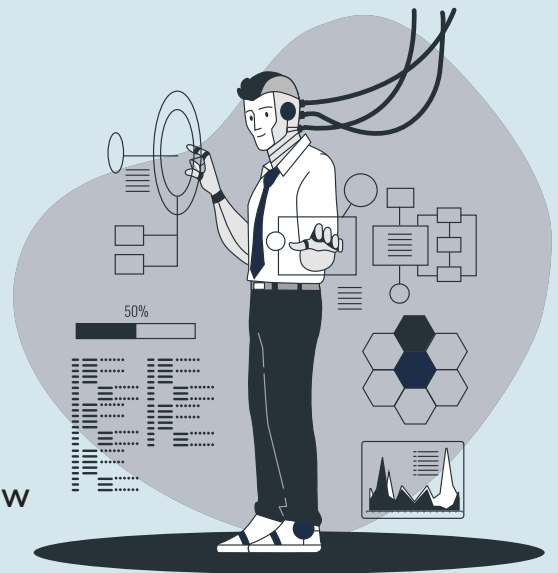
How Does it Work?

By simply integrating ThirdLine with your ERP data, government organizations have the assurance of hundreds of analytics running continuously, detecting fraud, waste, and abuse; testing internal controls; and revealing employee training opportunities.

ThirdLine was developed by internal auditors and data analysts focusing on these Agile methodologies.

The ThirdLine Scrum team created an audit canvas, documented a process with researched risks and controls, and wrote user stories for each data analytic in each module.

With years of audit work built into the product, ThirdLine makes Agile auditing a reality for internal auditors at government organizations—fast.

Go to the website to learn more.

Municipal Analytics for the Public Good

ThirdLine is a continuous monitoring platform that integrates with your local government ERP system.

About ThirdLine

We studied numerous ERP systems for years (including Tyler Munis®), and we have a deep understanding of how municipalities operate.

The ThirdLine platform is powered by more than 400+ analytics monitoring ERP system data and flagging high-risk transactions across an organization. These analytics work together continuously to review all transactions, highlighting the risks for review.

As your municipality's ERP data refreshes, so do your results. Our platform shows you where the transaction was flagged, who was involved in the transaction, and when the transaction was created, modified, and approved.

Be the Auditor who provides effective audit reports. Be the Chief Audit Executive who prevented a city-wide financial fraud.

Spend more time creating impact in your municipality.