

# Objectives

**What are the motivations, values and behaviors of the global audit workforce?**

And how can we address them to impact their efficiency, efficacy positively?

**How can we enhance the journey of an auditor on a project using digital tools?**

Meaning, how effective are the current tools at enabling auditors to be effective and enabled.

**Can the underlying technology service the needs of an enhanced auditor?**

Does the technology framework allow us to deliver the features and functions that will best enable auditors? If not, what are the recommended technology enhancements?



# Approach

- **Conduct qualitative research on the global audit workforce**
- **Define their motivations, values and behaviors**
- **Map their motivations and values to the current audit process and identify pain points**
- **Create series of auditor archetypes that define the dimensional needs of the auditor and how to motivate them through digital tools**
- **Create an matrix of opportunities, features and recommendations for enhancing digital tools to better serve auditors**
- **Utilizing recommendations from the matrix of opportunities, understand how the current user interface technology can be enhanced to better serve the needs of the auditor**



# User research



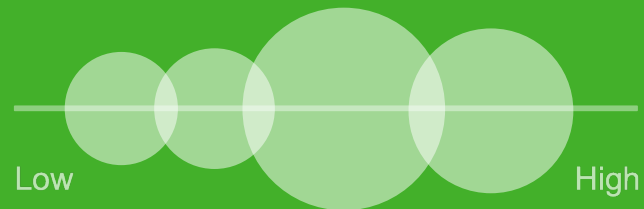
# User research - interviews

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50 Interviews

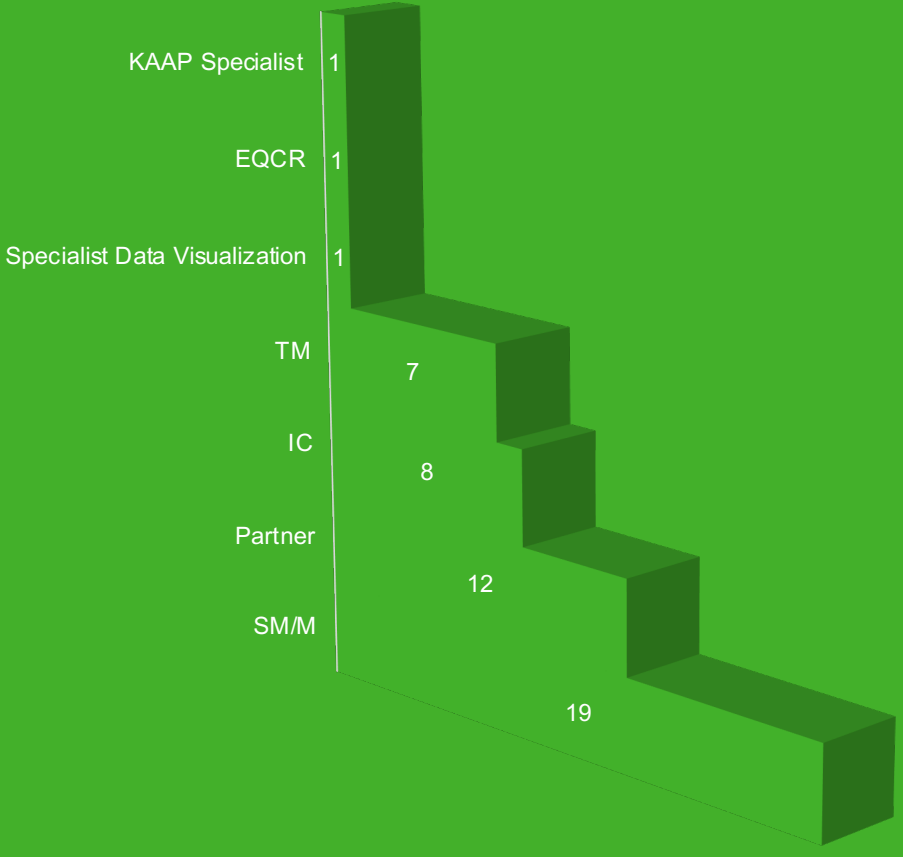
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Audit experience



United States, United Kingdom, Canada, Germany,  
Australia, Netherlands, France, China and Japan

# User research - interviews



# User personas & empathy mapping



Game Changer



Audit Effective



Maria.



William.



Emily.



Henry.



Kelly.



Mark.



Carl.

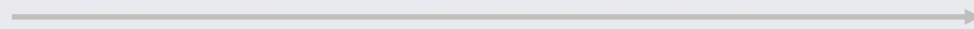


Jess.



Taylor.

Audit Naïve



Audit Savvy

## Empathy profile



thinking

There has to be a more efficient way of doing this.



feeling

Behind, over-worked, but a valuable member of the team.



doing

Creatively solving problems for herself and team.

# Meet Maria.

## Behavior Profile

Thinks big  
Problem solver  
Visual thinker  
Comprehensive notes  
Meticulous researcher

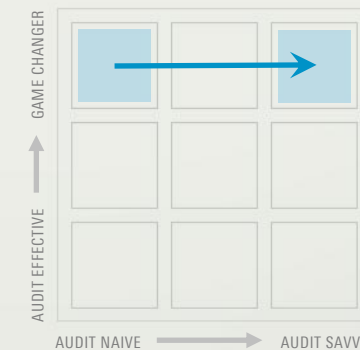


## Behavior progression tactics

- ✓ Focused project status + tracking
- ✓ Centralized documentation + data import automation
- ✓ Visual learning opportunities
- ✓ Increased interaction with specialists
- ✓ Simple + easy to use + customizable D&A for testing

## Why this persona?

Maria represents the up-and-coming team member. She knows what she wants from her career and takes pride in her work. A big picture thinker, Maria is always looking for efficiencies for herself and her team.



## Progression summary

Reward creative problem solvers with advanced learning opportunities covering complex issues. Increase bilateral learning between auditors and specialists. Standardize and automate menial tasks when possible.



## Empathy profile



thinking

I need to update my team on the new relevant standards.



feeling

Constrained by limited status and communication tools.



doing

Providing individual guidance and best practices to team members.

# Meet Kelly.

## Behavior progression tactics

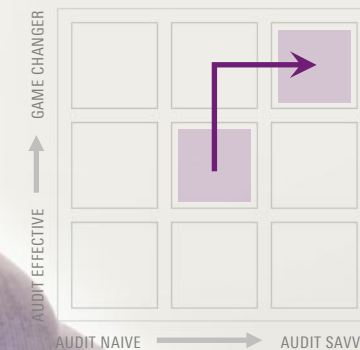
- ✓ Automated audit health + status
- ✓ D&A for improved risk assessment
- ✓ Integrated project management + tracking capabilities
- ✓ Promotion of team space, enhanced communication standards
- ✓ Mobile learning opportunities, mobile push updates

### Why this persona?

Kelly represents the well rounded auditor who prides herself in effective communication, understanding of audit health, and enabling her team to grow and evolve into savvy auditors of the future.

## Behavior Profile

- Ambitious
- Enables others
- Transparent
- Visually + text minded
- Aware



## Progression summary

Promote team dynamic and big picture thinking with team spaces and unified communication. Increase audit savvy with enhanced use of D&A, mobile access to audit health, and micro / mobile learning opportunities.

## Empathy profile



thinking

We're on track. Team is optimized and they have the tools they need.



feeling

Informed and confident. I have insight into all aspect of this engagement.



doing

Effectively presenting findings to clients using client portal.

# Meet Emily.

## Behavior progression tactics

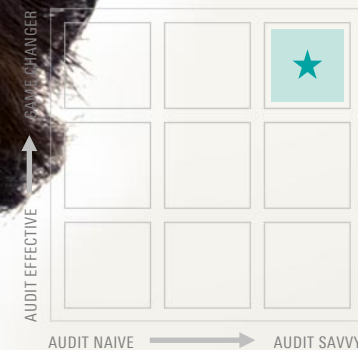
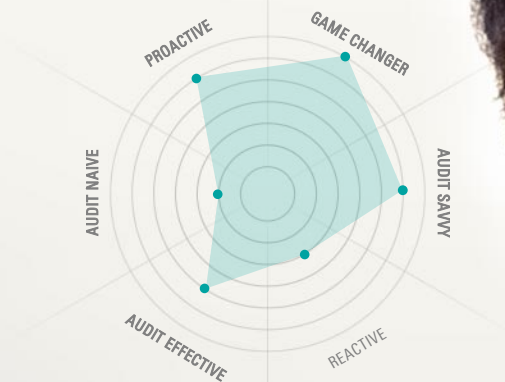
- ✓ Advanced analytics to increase audit efficiency + reduce risk
- ✓ Automated engagement / portfolio health + status
- ✓ Insights into industry developments and client competitors
- ✓ Customizable KPI widgets + notifications
- ✓ Mobile audit health, notifications + feedback

### Why this persona?

Emily represents the audit leader of the future. She is well informed, creative in her audit approach and effectively leverages her team's skills while empowering them with modern tools and enhanced guidance.

## Behavior Profile

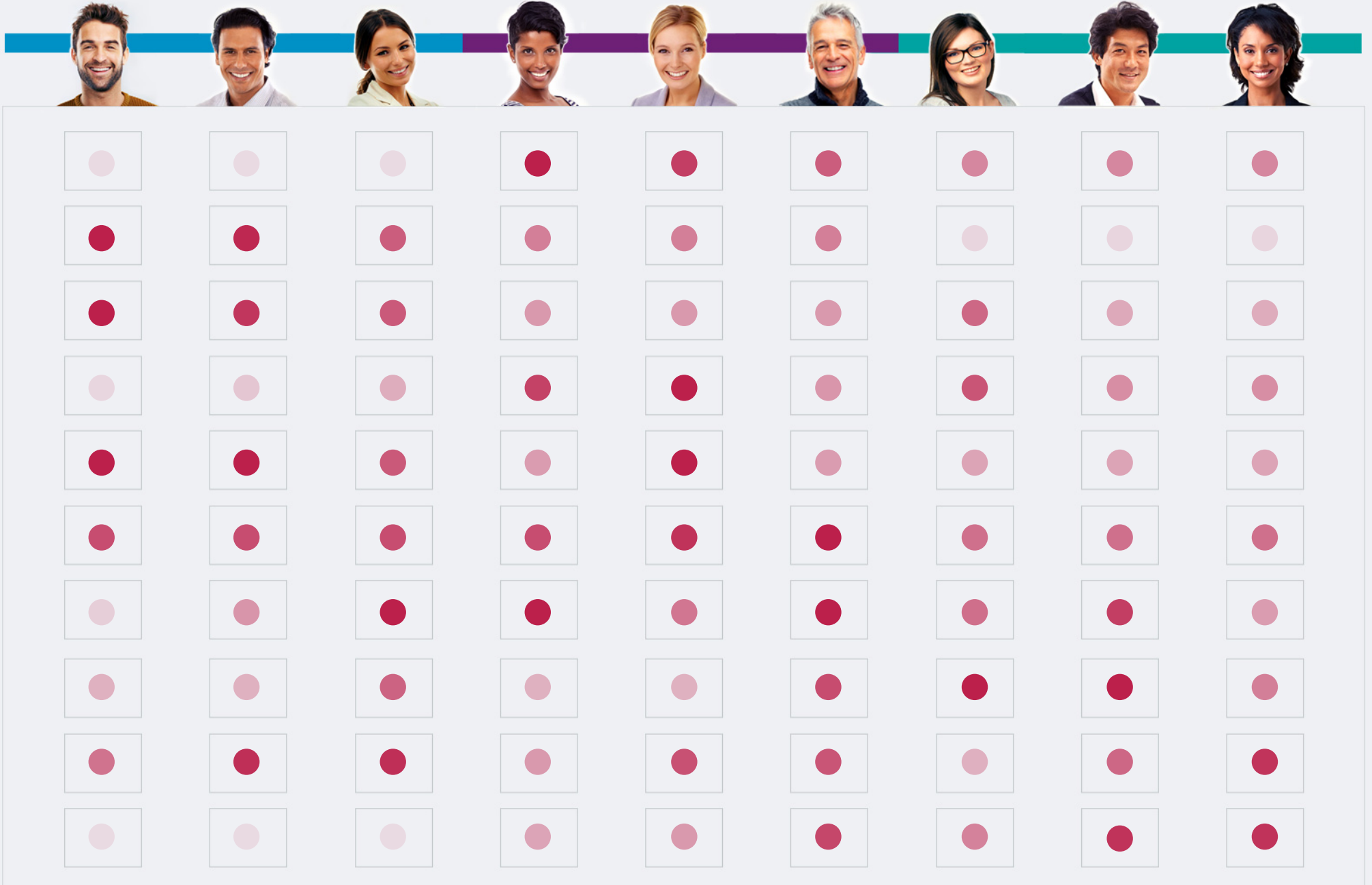
- Visionary
- Enabler
- Creative + intuitive
- Aware: client + audit
- Informed: audit + tech



## Progression summary

Empower auditors of the future with advanced audit technology and insights into client and industry specific data. Drive insight and efficiency with audit / portfolio health and status regardless of device.

# Pain points



# Opportunities



Project planning + tracking									
Enhanced review process									
Centralized documentation									
Integrated guidance + methodology									
Contextual learning									
Tailored, scalable workflows									
Shared spaces + unified comm. platform									
Leverage D&A									
Automated health + status									
Mobile status, notifications + feedback									

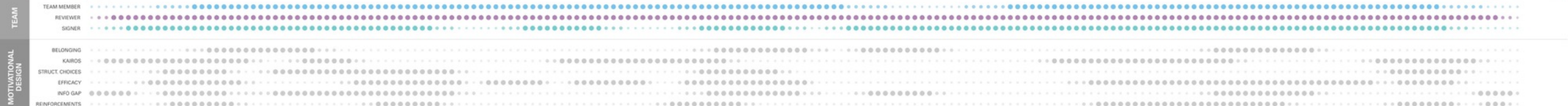
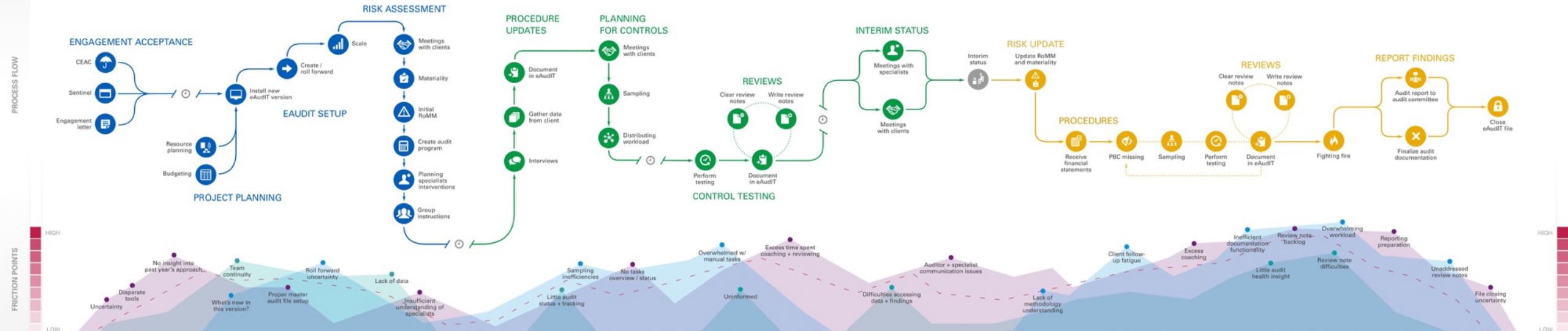
# Journey mapping



## Planning (April - July)

## Interim (August - December)

## Final (January - March)



<p><b>JESS REVIEWER</b></p> <p>"Project planning is cumbersome and rarely changes from the previous year. Can it be simplified / automated?"</p>	<p><b>TAYLOR SIGNER</b></p> <p>"Better risk assessment and the ability to tailor audits to clients' needs would save time throughout the engagement."</p>	<p><b>CARL TEAM MEMBER</b></p> <p>"I am unsure on how to approach this section. I know we covered this in training, but I can't recall the details."</p>	<p><b>KELLY REVIEWER</b></p> <p>"Communication in our team is good, but inefficient. I do my best to coach them, but finding time is difficult."</p>	<p><b>MARIA TEAM MEMBER</b></p> <p>"Conceptually I understand how D&amp;A can bring value to our engagement, I just don't understand the details."</p>	<p><b>MARK SIGNER</b></p> <p>"My clients don't always see the value in advanced audit tech and analytics. How can I convince them?"</p>	<p><b>WILLIAM REVIEWER</b></p> <p>"I want to focus on what matters most when it matters most, regardless of whether I'm in the office or at a client site."</p>	<p><b>HENRY TEAM MEMBER</b></p> <p>"Documentation, redundant tasks and duplicative information is laborious. Is there a better way?"</p>	<p><b>EMILY SIGNER</b></p> <p>"Real-time, mobile, automated audit health tracking + status would keep me informed and my clients happy."</p>
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<b>Proactive planning + tracking assistance</b>	<b>Tailor workflows, scale up, assess risk + back it up with data</b>	<b>Contextual learning + integrated methodology</b>	<b>Team enablement through spaces + unified communication</b>	<b>D&amp;A education + bi-lateral learning between auditors and specialists</b>	<b>Embrace + advocate audit technologies of the future</b>	<b>Prioritize issues, tracking + enhance the review process</b>	<b>Centralize, standardize + automate</b>	<b>Shine with industry leading audit health, status + reporting</b>
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|---|---|--|---|---|--|---|---|--|
| <p><b>Project planning + tracking</b></p> <ul style="list-style-type: none"> <li>Centralize and integrate tools and systems</li> <li>Reference previous year's planning / budget</li> <li>Integrated resource tracking</li> <li>Addition of visual deadline tracking</li> <li>Ensure roll forward completeness</li> </ul> | <p><b>Leverage D&amp;A</b></p> <ul style="list-style-type: none"> <li>Use D&amp;A during Risk Assessment</li> <li>Financial KPIs for Partners</li> <li>Slice &amp; dice Fin Rep (IRL)</li> <li>Illustrations, videos, audio clips</li> <li>Machine learning to automate audit program creation</li> </ul> <p><b>Tailored workflow</b></p> <ul style="list-style-type: none"> <li>Adapt workflow from KAM to PCAOB and other standards</li> <li>Improve specialists sections with enhanced dialogue / documentation of routine risk mitigation and how to interpret results, etc.</li> </ul> <p><b>Scalable + customizable workflow</b></p> <ul style="list-style-type: none"> <li>Provide more customization possibilities, scale up questions, and guidance to ensure audit files fit engagement needs.</li> <li>Provide prototyping view when scaling-up</li> </ul> | <p><b>Contextual learning opportunities</b></p> <ul style="list-style-type: none"> <li>Discovery mode (enable / disable learning opps)</li> <li>In-line, contextual learning opportunities</li> <li>Quick, convenient and targeted</li> <li>Illustrations, videos, audio clips</li> <li>Micro learning library</li> <li>Social learning + sharing accomplishments</li> </ul> <p><b>Integrated guidance + methodology</b></p> <ul style="list-style-type: none"> <li>Just in time guidance + methodology</li> <li>There when you need it, hidden when you don't</li> <li>Progressive disclosure: activity, requirement, guidance and audit examples</li> </ul> <p><b>Automated health + status</b></p> <ul style="list-style-type: none"> <li>Automated, on-demand, customizable dashboard</li> <li>Overview screens in eAuditIT for team members (Controls status, accounts, activities in general, RP needed or not, results effective or not)</li> </ul> | <p><b>Shared spaces + centralized communication</b></p> <ul style="list-style-type: none"> <li>Shared team space</li> <li>Group coaching + learning</li> <li>Standardized communication within eAuditIT</li> <li>Comments, activities, newsfeed, etc.</li> </ul> <p><b>Automated health + status</b></p> <ul style="list-style-type: none"> <li>Enhanced tools for understanding engagement progress and status</li> </ul> <p><b>Project planning + tracking</b></p> <ul style="list-style-type: none"> <li>Milestones / team calendar / planning to keep deadlines in mind and involve team</li> <li>Integrated audit files: tracker items, findings and review notes, etc.</li> </ul> | <p><b>Leverage D&amp;A</b></p> <ul style="list-style-type: none"> <li>Integrate D&amp;A education, IT Audit, and IRM audit approach</li> <li>Provide tools and insights to be successful advocates</li> <li>Automate mapping &amp; analysis</li> <li>Use D&amp;A to accelerate audit testing activities, cover full population, reduce human error, reduce stress, ask smarter questions (outliers)</li> </ul> <p><b>Shared spaces + centralized communication</b></p> <ul style="list-style-type: none"> <li>Shared team space</li> <li>Auditors + specialists</li> <li>D&amp;A coaching + learning</li> <li>D&amp;A best practices</li> </ul> | <p><b>Leverage D&amp;A</b></p> <ul style="list-style-type: none"> <li>Integrate D&amp;A education, IT Audit, and IRM audit approach</li> <li>Provide tools and insights to be successful advocates</li> </ul> <p><b>Automated health + status</b></p> <ul style="list-style-type: none"> <li>D&amp;A based reporting</li> <li>Visually appealing reports for client consumption</li> <li>Automated deliverable creation</li> <li>Financial statements for small audits</li> <li>Management letter points</li> <li>Engagement letters</li> <li>Status report, findings, etc.</li> </ul> | <p><b>Enhanced review process</b></p> <ul style="list-style-type: none"> <li>Risk-based guided workflow</li> <li>Assign (ownership), track (timely clearing), notify (alert)</li> <li>Consolidate review notes in a single screen</li> <li>Pivot workflow for reviewing ease (review mode)</li> <li>Targeted review notes (specific sections)</li> <li>Customizable notifications</li> <li>Mobile enabled review capabilities</li> </ul> <p><b>Automated health + status</b></p> <ul style="list-style-type: none"> <li>Automated, on-demand, customizable dashboard</li> <li>Role based KPIs (tasks status, time tracking, completeness by process/activity, etc.)</li> </ul> <p><b>Mobile status, notifications + feedback</b></p> <ul style="list-style-type: none"> <li>Status, dashboards, overview</li> <li>Customizable, priority based, push notifications</li> <li>Creation of review notes</li> </ul> | <p><b>Centralized documentation</b></p> <ul style="list-style-type: none"> <li>Unified document repository, integrated access, viewing, management within eAuditIT</li> <li>Integrate PBC into eAuditIT (+ placeholders)</li> <li>Use a single repository for all attachments and link them to activities</li> <li>Send automated reminders to client + measure delays + notify when reviewed</li> <li>Build trust with client regarding data security</li> </ul> <p><b>Modern UX / UI + tech enhancements</b></p> <ul style="list-style-type: none"> <li>Automate what can be, outsource to central teams (easy and specialized tasks)</li> <li>Automate mapping &amp; analysis</li> <li>Provide team with standardized templates and working papers for recurrent activities</li> <li>Prevent errors (large buttons, rules preventing inappropriate actions, explain errors).</li> <li>Integrate Office Suite capabilities to eAuditIT</li> <li>Dynamic flowchart visualization capabilities</li> </ul> | <p><b>Automated health + status</b></p> <ul style="list-style-type: none"> <li>Visually appealing reports for client consumption</li> <li>Automated deliverable creation</li> <li>Financial statements for small audits</li> <li>Management letter points</li> <li>Engagement letters</li> <li>Status report, findings, etc.</li> </ul> <p><b>Mobile status, notifications + feedback</b></p> <ul style="list-style-type: none"> <li>Status, dashboards, overview</li> <li>Customizable, priority based, push notifications</li> <li>Creation of review notes</li> </ul> |
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# Insights & future state opportunities



# Ensure successful audits with integrated project planning & project tracking capabilities.

Audit engagements require meticulous project planning and tracking. Proper planning and budgeting for engagements, large or small, is of the utmost importance to ensuring a high quality audit. Today, auditors juggle multiple disparate systems, resulting in reduced insight and quality.

Audit teams should be able to track status throughout an audit. Software tools should enable teams to be flexible and react to unplanned situations proactively. Real-time budget and planning metrics that provide critical insights can reduce the amount of context shifting, budget and execution churn and stabilize team efficacy.

## Opportunities

- Integrate with current project management systems
- Provide the right data during budgeting, resource planning, tasks assignment
- Build in milestone creation, deadline definition and resource involvement
- Real-time visual status throughout an audit engagement
- Set proper role definition and expectations



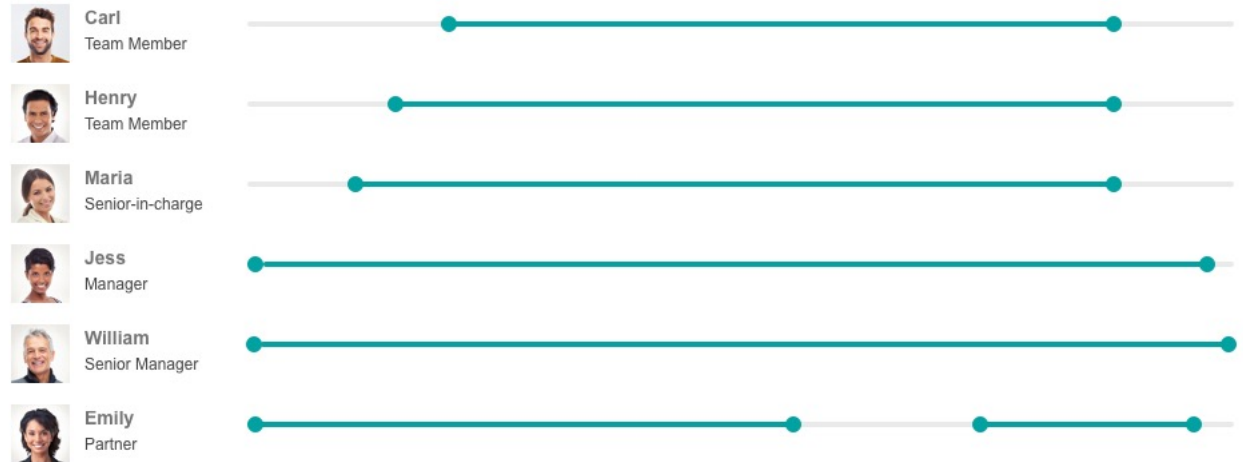
## Client ABC - Project planning - Resourcing



2017 vs 2018



Benchmarking



## Milestones



## Insight 3

# Save time, reduce redundancies, & unify teams — use a **centralized documentation repository.**

Current methods for managing client documentation, working papers, and attachments are overly complex and time consuming. Files are exchanged with clients and colleagues through multiple channels including email, flash drives, and cloud based solutions resulting in lack of team insight, versioning issues and wasted time. This lack of centralized documentation creates unneeded friction and overall frustration throughout the course of an audit.

## Opportunities

- Create a single source of truth for audit documentation
- Create permission based 'spaces' for team and client
- PBC placeholders and task list
- Link (reference) documents within controls and activities
- Updates, reminders, notifications
- Documentation templates (global and local)
- Seamless document and workflow management



### Client ABC - Prepared by Client (PBC)



### Spaces

The screenshot shows a grid of document cards in a 'Spaces' view. A context menu is open over the 'Earnings per share calculation' card, showing options: 'Send reminder', 'Remove request', and 'Share'. Other cards include 'Archive', 'In-house legal letter / litigation summary', 'Relevant general IT controls', 'Significant Account(s) / Disclosure(s)', 'External legal council list', and 'Sed ut perspiciatis unde omnis iste natus error'. A 'Past Due' warning is visible on several cards.

### Recent activity

- Suzanne Stevens  
File added to PBC  
 **Lorem Ipsum Dolor**
- Jess  
File added to PBC  
 **Sed ut perspiciatis unde**   
Team, this is interesting.
- Gary Green  
File added to PBC  
 **Voluptatem accusant**   
Here you go Jess.
- Maria  
File added to PBC  
 **Accusantium dolore**
- Carl  
File added to PBC  
 **ASU 2010-17 - Reven**

## Insight 4

# Empower auditors, in real time, on the move, with **mobile audit status, notifications & feedback.**

Within the global audit workforce, managers and above often juggle multiple clients and are consistently on the move. As part of the effort to enhance our audit workforce, we should focus on ways to be mobile-first in our approach. By providing a limited but valuable subset of functionality, including audit health, milestone and task tracking, review comments and approvals, and push notifications, we can empower the global audit workforce with the information and tools needed to succeed.

## Opportunities

- Responsive interface for tablets and phones
- Mobile optimized audit health
- Access to milestone and task tracking
- Mobile enable review workflow
- Customizable push notifications



## General recommendations

# Optimize auditors' experience with product-based, **modern UX/UI & technology enhancements.**

The modern employee expects more from his or her digital experiences. Workforce digital experiences need to be as effective, user friendly and easy to use as the tools they use in their personal lives. Responsive web, cloud based technologies with rich text formatting, auto-save, change tracking, version control, edit what you see, are the norm in today's digital workforce. The delta between current digital functionality and user expectations leads auditors to often turn to outside solutions.

User expectations and needs will never stop evolving. To meet the needs of this ever-evolving workforce, it is imperative to plan for progressive, user-centric enhancements well into the future.

## Opportunities

- Future state roadmap
- Product-focused approach
- Workflow solutions that match the users and their needs
- Functional update to meet modern UX standards
- Visual alignment with modern brand standards

standardize

Automation, data mapping & analysis

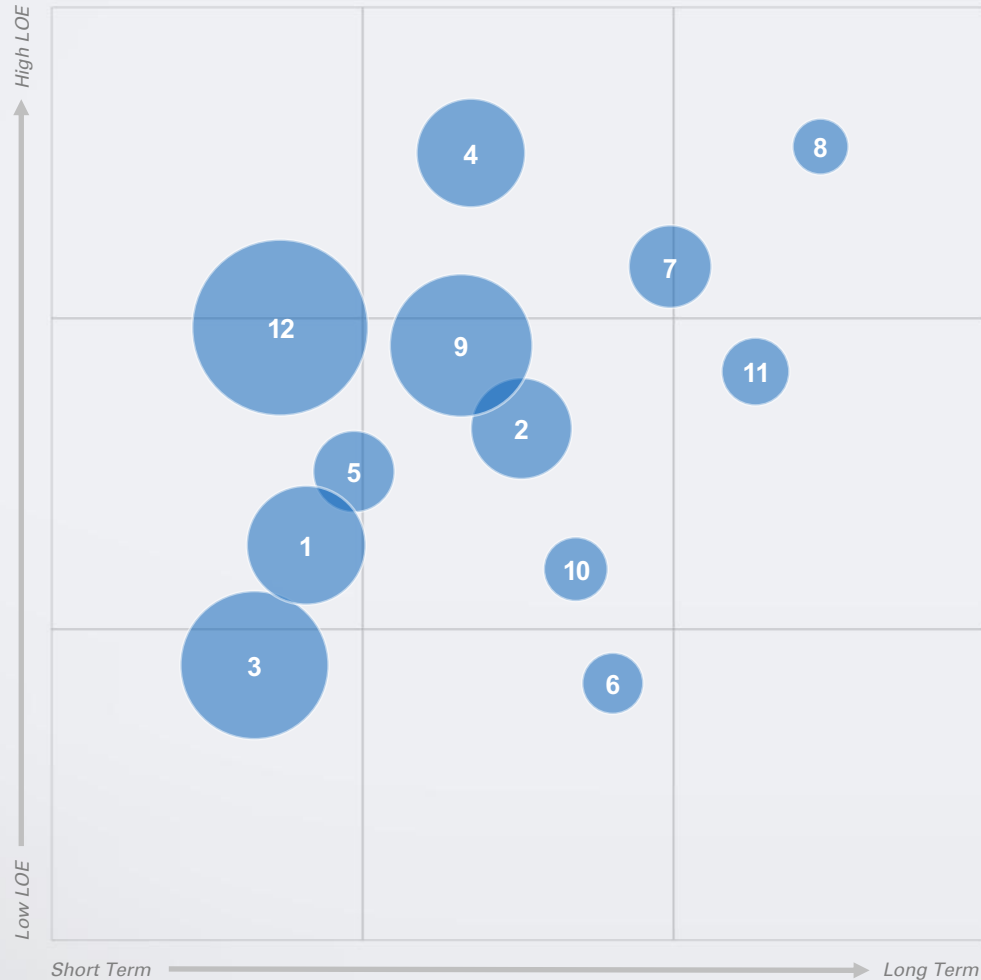
standardized templates and working papers

process mining **visual** modularity

flowcharts for processes

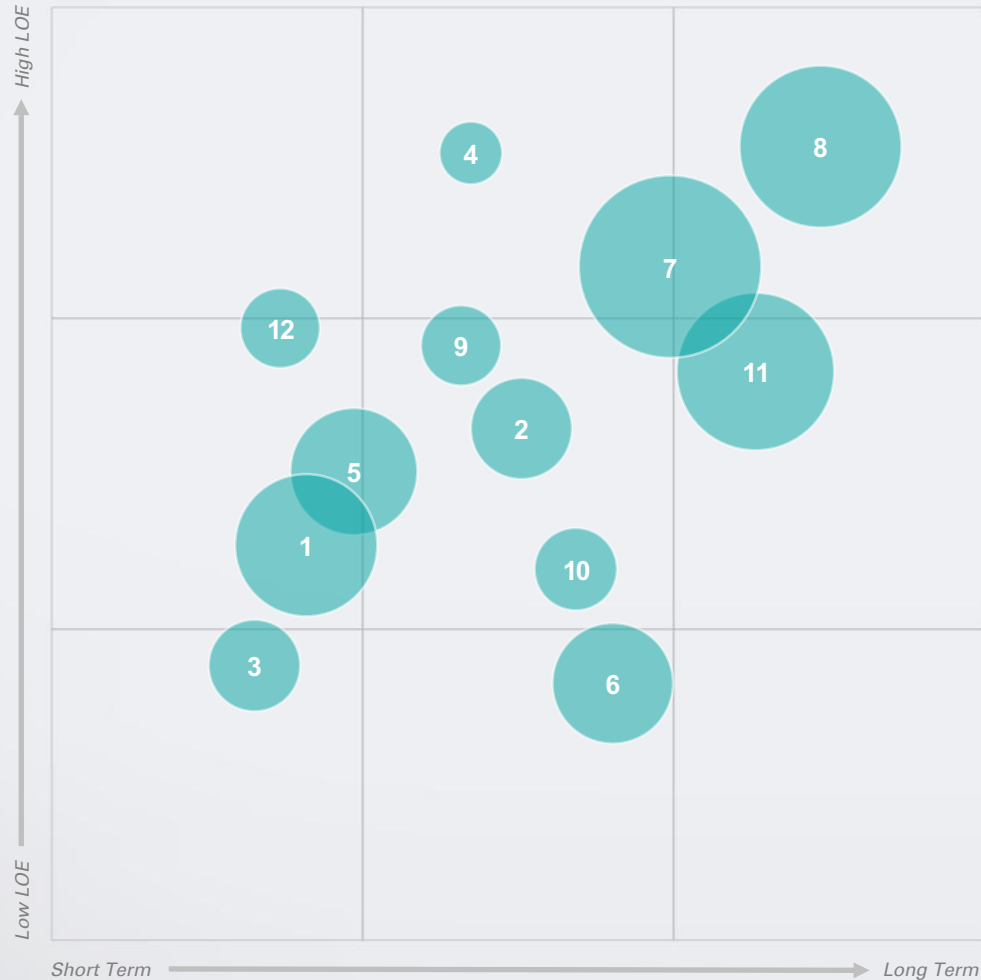
unify screens

# User experience impact



1. Integrated project planning & tracking capabilities
2. Enhanced review process
3. Centralized documentation repository
4. Mobile audit status, notifications and feedback
5. Integrated guidance and methodology
6. Contextual learning opportunities
7. Advanced scalability & customizable workflow engine
8. Tailored to requirements of local standards
9. Shared spaces & centralized communication platform
10. Automated audit health & status
11. Leverage the power of D&A
12. Modern UX/UI & technology enhancements

# Audit quality impact



1. Integrated project planning & tracking capabilities
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