



# Document and workflow automation as strategic tools for workforce productivity

Commissioned by



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# Executive summary

The humble document is not so humble anymore. As with many other “traditional” content file types associated with knowledge work, documents and the software that enables their creation and relevant workflows have evolved in recent years. Modern developments in document generation, automation, intelligence, security and workflow integrations have helped files such as PDFs evolve into more strategic tools in work execution. And investments in the software surrounding these tools have deep implications for the future of work and engagement of those in IT, legal, HR, sales and beyond.

Following the mass-scale shift to remote and hybrid work models, we began to recognise the long-term cultural and operational changes that impact work and business models. More recently, leaders have begun to align their vision of the digital workplace with their employee experience strategies – prioritising investments in the employee experience to drive recruitment, retention and operational efficiencies. Increasingly, what is driving deeper employee engagement – in addition to a sense of belonging and career opportunities – are investments in technology tools that elevate the quality of day-to-day work experiences.

Respondents to 451 Research’s Voice of the Enterprise: Workforce Productivity & Collaboration, Work Execution Goals & Challenges 2023 survey say that access to the right tools and technologies (48%) has the biggest positive impact on productivity in their role. Productivity is tied closely to a positive employee experience, and supporting productivity demands investment in the right tooling strategies to drive the biggest impact across an ever-expanding application estate.

A modern document and workflow strategy – one that leverages intelligence, automation and integrations – is a great starting point because it addresses a tooling structure and file types that have a high degree of use and familiarity within an organisation. The addition of features such as electronic signature, data-layer integrations and generative AI for searchability and accessibility help unlock document intelligence, support more complex workflows and maintain a foundation of compliance and security.

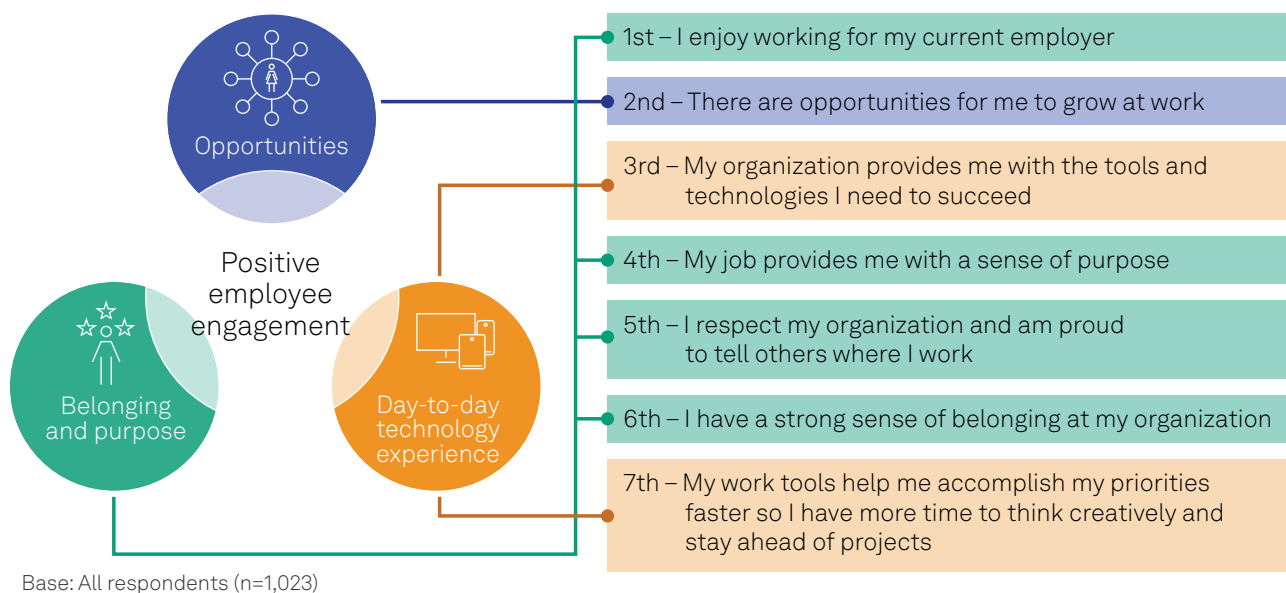
Other file types and workflow systems have had their time in the limelight recently, but documents are long overdue for a strategic investment. These files and their related processes are often among the main tools that knowledge workers use to drive business outcomes.

# Document productivity and employee engagement

Investing in the future of work requires a parallel focus on employee engagement, as we believe the two are interconnected. We have found that investments in work tools that support productivity drive engagement and an improved employee experience.

We performed a regression analysis on data from our Voice of the Enterprise: Workforce Productivity & Collaboration, Employee Engagement 2022 survey to determine the top drivers of positive employee engagement. From more than 40 different variables included in the analysis, the seven shown below (marked in order) are most likely to improve employee engagement.

**Figure 1: Top drivers of positive employee engagement**



Q. In general, how engaged do you feel by your organisation and the work you do?

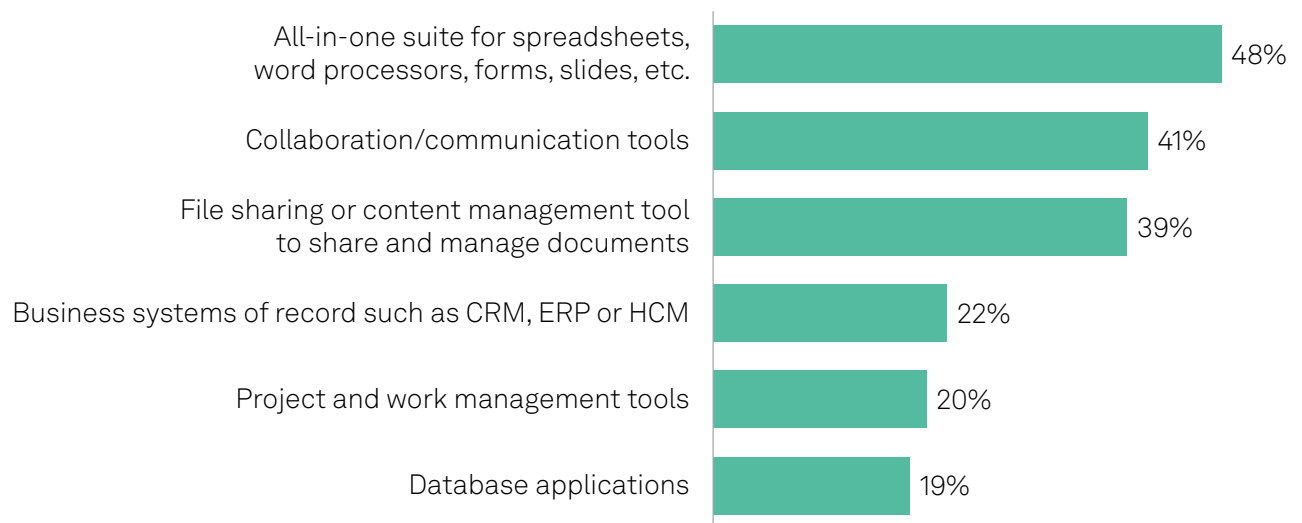
Base: All respondents (n=1,023).

Source: 451 Research's Voice of the Enterprise: Workforce Productivity & Collaboration, Employee Engagement 2022.

The ability to be productive using work tools represents two of the top drivers of positive employee engagement – a metric often tied to employee satisfaction and retention. Many business leaders think of increasing productivity as an end goal. Rather, we see that investment in tools, technologies and systems can drive engagement, which in turn unlocks increased productivity, as well as other positive business outcomes.

So, there is a distinct demand to drive productivity, but the looming question remains of just how to go about doing that. Business leaders want to make the biggest impact with their budget, so they must be strategic in how they approach tooling investments to drive workplace transformation. Leaders must look to some of the most broadly used tools and, at a high level, all of them have some connection to business content such as documents.

**Figure 2: Tools that contribute most to personal productivity at work**



Q. Which of the following tools contribute the most to your personal productivity at work? Please select all that apply.

Base: All respondents (n=256).

Source: 451 Research's Voice of the Enterprise: Workforce Productivity & Collaboration, Work Execution Goals & Challenges 2023.

There is a clear demand for content tools and their impact has the potential to extend beyond daily work efficiency. When organisations are considering exactly what type of content tools to focus on and their potential impact, documents and the tools that support their creation and workflows stand out as providing a means to help transform a variety of work processes and strategies across various roles and personas. Let's look at the transformation of the document ecosystem to better understand where next-generation documents fit within modern work.

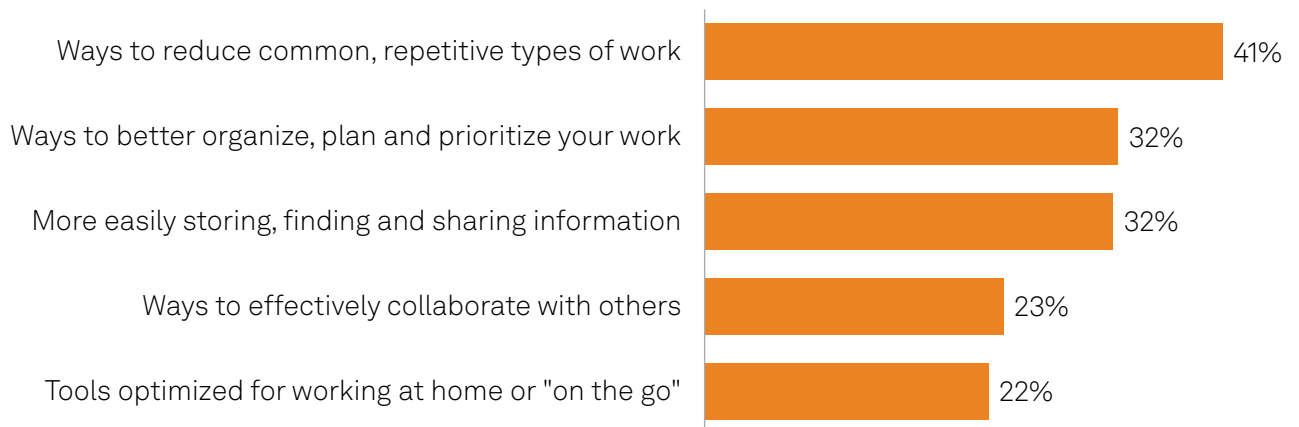
# The evolution of the document ecosystem

Over the past few years, start-ups and legacy vendors alike have taken to redefining the main file types. New work platforms have evolved from the spreadsheet format to offer a streamlined option for tracking and managing work. Other vendors are working to level-up virtual presentations from desktop slideshows, addressing a need for work execution to adapt to new hybrid and remote work models.

What's next, though, is a new approach for documents and document workflows. As we saw in Figure 2, there is already a high degree of document use and familiarity in organisations, but document capabilities and the kinds of work they can support have been extended with adjacent technologies and a broader ecosystem of document file types.

To understand this shift, it's helpful to be aware of employees' key pain points when it comes to the technologies they use.

**Figure 3: Most beneficial tooling improvements for individual performance**



Q. Thinking specifically about the tools and technologies you use to get your work done, which of the following, if improved, would most benefit your individual performance? Please select all that apply.

Base: All respondents (n=256).

Source: 451 Research's Voice of the Enterprise: Workforce Productivity & Collaboration, Work Execution Goals & Challenges 2023.

Transformative tools are the ones that help level up the performance of end users in an organisation. Here are some of the top document trends and how they address the desired improvements shown in Figure 3.

# Document trends and their impact

**API integrations:** Trends such as API integrations make it easier to collaborate, and make information easier to store, find and share. Often, documents are an intersectional content type that must collect information from other data stores or systems of record to help certain workers execute their work processes. For example, a sales professional may need to pull client information from Salesforce directly into a contract to maintain accuracy, or an HR or legal professional may need to pull job candidate data in real time into a job offer letter or employee contract PDF. The right integration capabilities with the modern document and its associated workflows should be focused on seamlessly connecting the most critical systems of record within an organisation.

**Viewability and mobility:** According to 451 Research's Voice of the Enterprise: Workforce Productivity & Collaboration, Technology Ecosystems 2022 survey, nearly half (49%) of respondents expect the majority of their organisation's desk workers to remain permanently remote or adopt a hybrid schedule. People are now working from anywhere, many on their phones and on the go. A modern, dynamic design makes documents and tools more useful when employees are working from a variety of devices.

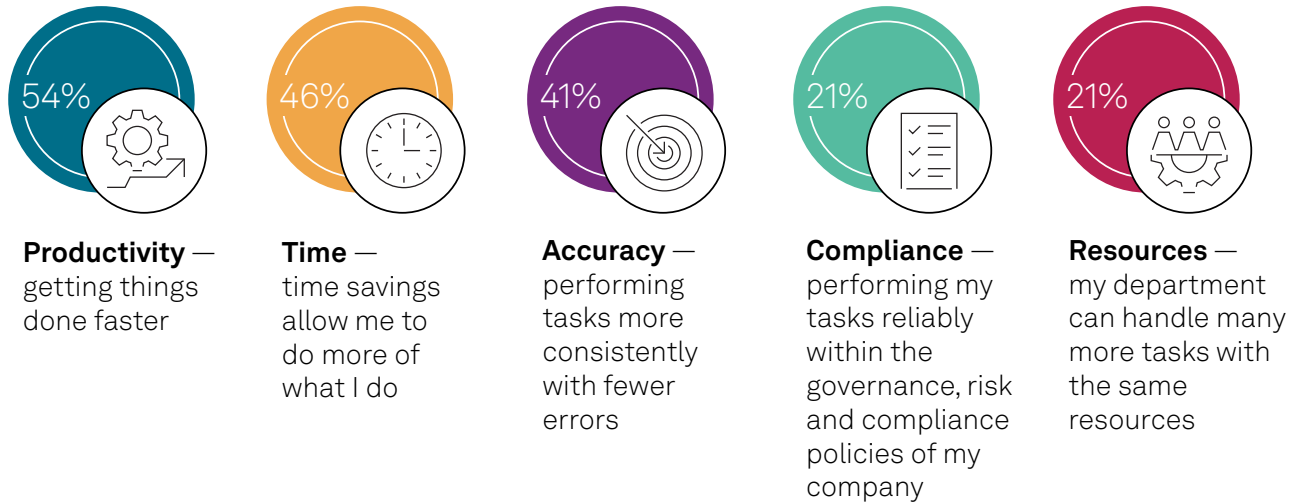
**Electronic signature:** E-signature is one of the most critical features of the document's evolution into a tool for getting work done. With compliant e-signature and digital signature architectures, work processes such as signing a contract can be completed within the document itself, adding to the value of the document tool for the end user. This supports working on the go and takes out the manual steps of printing a document, having it signed and scanning it back into the system – or even faxing the document or sending it by post, which is common in some industries.

**Security:** An already dynamic threat landscape is compounded by the rise of remote and hybrid work models with employees working outside of a secure office network. Modern, transformative tools lead from a security-first perspective, with a foundation that prioritises security and governance so end users are free to work how they want. With high-profile data breaches regularly making headlines, it's critical that modern document tools provide redaction capabilities, sharing limitations, trusted e-signature and digital identity verifications to limit potential security threats that may emerge as documents become more central to strategic business processes.

**Standardisation:** One big challenge impacting collaboration is a lack of file type standardisation. Without standardisation, files can be incompatible and may not be readable across the various teams within an organisation, potentially limiting collaboration opportunities. Additional friction can be introduced when a document user must contact the originator of the file to request it be reformatted and resent. Standardisation helps support cross-team collaboration while improving security and the consistency of experiences working in document tools.

**Workflow automation:** Transformation demands automation – and documents are no exception. When it comes to reducing common, repetitive types of work, workflow automation features play a key role. Figure 4 highlights some of the benefits of automation as noted in our research.

**Figure 4: The top benefits of automation technology and automated workflows**



Q. Please choose the top three benefits that you believe can come from using automation technology and automated workflows.

Base: All respondents (n=408).

Source: 451 Research's Voice of the Enterprise: Workforce Productivity & Collaboration, Work Execution Goals & Challenges 2023.

While all these trends are driving growth and change in the document ecosystem, the explosion of generative AI into the public sphere presents new angles through which we can envision the evolution of documents.



# Benefits of GenAI for documents

AI tools such as optical character recognition (OCR) have long been in use among document tool vendors to help with understanding the data in documents, improving the organisation and management of files, and even underpinning some workflow automation. The advent of GenAI, however, further enhances the potential of intelligent documents through the following use cases.

**Document generation:** GenAI can help automate the creation of various documents, such as reports, contracts and forms. Using defined templates or patterns, it can generate elements such as a clause in a legal document, or entire documents. It can also help personalise or contextualise content for a specific audience.

**Summarisation:** GenAI is useful for managing, organising and researching a large corpus of content; it can extract key information from lengthy documents and generate summaries or abstracts. Additionally, it can extract and analyse data from a document.

**Improved search:** With its indexing and categorisation capabilities, GenAI has the potential to improve search functionality in documents such as PDFs.

**Language translation:** Global businesses working across multiple geographies will benefit from GenAI's ability to translate documents into multiple languages. This could provide cost savings and scalability improvements over hiring human translators.

**PDF accessibility:** GenAI can help drive accessibility for users with a disability. Its ability to convert text to speech and create structured tags that are crucial for screen readers could help with vision-impaired users, for example.

But why now? At least in part, because trust in AI is growing. According to 451 Research's Voice of the Enterprise: AI & Machine Learning, Use Cases 2023 survey, 66% of IT decision-maker respondents say they mostly or wholly trust AI predictions made by a third-party product. That trust could set the stage for accelerated adoption of tools such as generative AI, but it could also negatively impact a brand if the quality and consistency of predictions and expectations are outside the realm of what users expect.

GenAI and the aforementioned technology trends underpin the transforming nature of the document, but why does that matter? It matters because a modern document strategy unlocks business value by enabling specific outcomes. Let's explore some of the use cases supported by this transformation.

# Use cases

## HR

HR process improvements represent an important strategic focus for HR departments over the next two years, according to HR respondents to 451 Research's Voice of the Enterprise: Workforce Productivity & Collaboration, Employee Lifecycle and HR 2023 survey. As HR looks to modernise its processes, document-centric workflows are likely to be front and centre. HR's core roles all deal with sensitive documents – offer letters, employment contracts, payroll paperwork, etc. These workflows would benefit from a modern document workflow strategy, including the ability to easily combine multiple PDFs into one document for manageability and the ability to secure or redact certain information to meet compliance standards. Additionally, technologies such as GenAI could help with the automated generation of job descriptions and even employment contracts based on those descriptions.

## Sales automation

This is a core use case for modern document strategies, especially those dealing with PDFs, because it often requires tight coordination among sales, finance, legal and operations personnel to get agreements and contracts finalised and signed. Integrations with customer relationship management (CRM) software help automate the building and management of contracts, while integrations with communication and collaboration tools help keep the right team members connected to the project. GenAI data extraction and analysis could also help sales reps prioritise their outreach based on contract renewal dates or deal value.

## Supply chain/logistics

Supply chain disruptions still pose a major threat to organisations' overall sales, beating out both labour shortages and energy prices by a small margin, according to 451 Research's Macroeconomic Outlook: Business Trends, Digital Transformation 2023 survey. As such, we expect increased investment in tools and systems that improve processes for procurement, expenses, logistics and supply chain generally. This includes creating NDAs for vendors, approving budget to secure new services and using GenAI to efficiently search through contracts for important or confidential information.

## Legal

Legal is another department that relies heavily on documents in its day-to-day work and could greatly benefit from a renewed investment in document software. File types such as PDFs often become the centre of gravity in these workflows due to their options for standardisation and, more recently, e-signature. Legal professionals could not only benefit from technologies such as GenAI to help them find elements such as expiry dates in contracts and automatically generate documents, they also need easy ways to redact sensitive information to protect the business, password-protect PDFs to prevent unauthorised access and add watermarking.

## Finance

Documents can be central to expense reporting, with OCR and GenAI playing a key role in text capture from receipts, especially on mobile devices. Additionally, document management and e-signature features help support a variety of processes in accounts payable, accounts receivable and beyond. Being in another security-focused area, finance users also benefit from bolstered security features such as password protection.

## IT

Modern document tools help IT deliver the balance of agility (through AI and integrations), autonomy (through workflow automation and accessibility/viewability) and alignment (through standardisation and governance) to their business stakeholders. Digital transformation is a high priority for IT, and the broad use of content such as PDFs makes it a clear choice for modernisation to deliver automation and intelligence at scale. IT also cares a lot about standardisation because it streamlines processes, tools and the procurement of software. Additionally, a focus on embedded, all-in-one solutions helps with priorities such as collaboration in the flow of work.

# Conclusions

The future of work and the requisite shift in work models is forcing organisations to revisit their IT investments, with a particular focus on the tools that drive productivity. As buyers take a closer look at their document software strategy, they must consider tools that meet their users where they work (e.g. across desktop and mobile platforms), support their most pressing workflow needs with automation and AI, and offer the tools needed to unlock the business data within a document while keeping everything secure. This is how the modern document can be leveraged for new business outcomes. And, if leveraged properly, the future of the document could greatly influence the broader future of work.



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# About the author



## Conner Forrest

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## About this paper

A pathfinder paper navigates decision-makers through the issues surrounding a specific technology or business case, explores the business value of adoption and recommends the range of considerations and concrete next steps in the decision-making process.

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