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Industry Watch

Paper-Free Progress:
measuring outcomes

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Industry Watch

Paper-Free Progress: measuring outcomes

About the Research

As the non-profit association dedicated to nurturing, growing and supporting the information management community, AIIM is proud to provide this research at no charge. In this way, the entire community can leverage the education, thought leadership and direction provided by our work. We would like these research findings to be as widely distributed as possible. Feel free to use individual elements of this research in presentations and publications with the attribution – "© AIIM 2015, www.aiim.org". Permission is not given for other aggregators to host this report on their own website.

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Process Used and Survey Demographics

While we appreciate the support of these sponsors, we also greatly value our objectivity and independence as a non-profit industry association. The results of the survey and the market commentary made in this report are independent of any bias from the vendor community.

The survey was taken using a web-based tool by 430 individual members of the AIIM community between August 14, 2015, and September 02, 2015. Invitations to take the survey were sent via e-mail to a selection of the 80,000 AIIM community members.

Survey demographics can be found in Appendix 1. Graphs throughout the report exclude responses from organizations with less than 10 employees, and suppliers of ECM products and services, taking the number of respondents to 365.

About AIIM

AIIM has been an advocate and supporter of information professionals for 70 years. The association mission is to ensure that information professionals understand the current and future challenges of managing information assets in an era of social, mobile, cloud and big data. AIIM builds on a strong heritage of research and member service. Today, AIIM is a global, non-profit organization that provides independent research, education and certification programs to information professionals. AIIM represents the entire information management community: practitioners, technology suppliers, integrators and consultants.

About the Author

Doug Miles is Chief Analyst at AIIM. He has over 30 years' experience of working with users and vendors across a broad spectrum of IT applications. He was an early pioneer of document management systems for business and engineering applications, and has produced many AIIM survey reports on issues and drivers for Capture, ECM, Information Governance, SharePoint, Mobile, Cloud, Social Business and Big Data. Doug has also worked closely with other enterprise-level IT systems such as ERP, BI and CRM. Doug has an MSc in Communications Engineering and is a member of the IET in the UK.

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Introduction

For more than 25 years, AIIM has advocated the reduction of paper in business, initially to save office space and improve records retrieval, but in the past 10 years more focused on removing paper from business processes in order to improve productivity, accessibility and compliance. Despite the widespread acceptance that reducing and removing paper is a best practice, there is a huge difference between the best performers and the laggards. Piles of paper contrast with clear desks, post bags and delivery vans contrast with mobile capture, warehouses full of boxes contrast with electronic archives, and forms-based processes contrast with automated workflows.

Even amongst those who have transformed their back-office processes, there is still much work to be done to capture multi-channel customer communications and unify front-office response. The early movers in digital mailrooms and mobile capture are achieving strong competitive advantage by capturing as close to the origin as possible. Meanwhile, the efficiency, effectiveness and resilience of all offices could be greatly improved by removing those legacy hiccups of approval signatures and mark-up copies that still cause paper to pile up on the desk.

In this report, we take an in-depth look at the amount of paper in the office, the impediments to removing it, the take up of digital mailrooms and multi-channel capture, and the increasing exploitation of mobile and cloud. Above all, we look at the progress towards paper-free processes, the triggers and decision-making processes, and the issues, benefits and ROI.

Key Findings

Paper in Processes

- **Paper in the Office-only 17% of respondents work in what could be described as a paper-free office.** 31% admit their office is piled high with paper documents and paper processes. 40% still use paper for filing "important stuff", and 56% are wed to signatures on paper for contracts and order forms.
- **20% report that their consumption of paper is increasing; but for 49% it is decreasing, including 11% where it is decreasing rapidly.** This 2015 net of 29% compares with 23% net in 2014 and 3% net in 2011.
- **55% report that paper flowing through their processes is decreasing including 12% rapidly decreasing.** With 20% increasing, this net of 35% compares with 21% in 2014 and 21% in 2011.
- **The number of organizations actively looking at every process for paper elimination has grown from 9% in 2014 to 16% in 2015, including just 3% who feel they have reached the limit.** 36% feel they are making good progress, with just 7% sticking with paper processes – down from 11% in 2014.
- **Lack of management initiatives is given equal weight to staff preferences (49%) as the reason there is still so much paper around.** 39% feel there is a general lack of understanding of paper-free options.

Capture

- **41% are using OCR in some form. 23% are capturing process data including 9% using intelligent/adaptive workflows.** 16% are not using OCR, but workflow flat images, and 18% scan primarily for archive.
- **The biggest driver for scanning and data capture is improved searchability and sharability (53%).** Higher productivity, reduced storage space and faster response are all key drivers. 27% have an environmental policy to reduce paper usage.
- **40% of organizations report that more than half of their invoices are now delivered electronically - but 35% agree that most get printed anyway.** 31% agree that most of the paper documents they retain are only there for the signatures, and that most of the documents they scan are unchanged from printer to scanner.

Digital Mailroom and Multi-Channel Inbound

- **26% scan in advance of the process, including 7% using a digital mailroom and 11% with multi-channel capture.** 22% scan to archive after the process – much more so in North America (26%) compared to Europe (10%) where digital mailrooms (10%) and multi-channel (14%) are more popular.
- **A hybrid of centralized and distributed is the most popular digital mailroom scenario (40%), with a further 25% using only centralized floor-standing scanners.** Faster turnaround to customers (54%), improved mail productivity (48%) and improved data capture quality for downstream processes (41%) are given as the biggest benefits.

- **40% admit that they deal with multi-channel content in an ad hoc way. 35% are likely to print electronic inbound and process as paper.** 32% deal with paper and electronic through the same workflow, but just 3% have a comprehensive multi-channel system across paper, electronic and social.

Process Optimization and Workflow

- **In 40% of organizations, line of business heads and departmental managers are deemed responsible for "radical process review".** For 14%, the head of IT is tasked. 33% place responsibility with a central efficiency department or the main board.
- **For 14%, the rate of converting key processes to paper-free is moving quickly or even completed (4%), and for 48% the rate is increasing slowly.** 15% admit they are stalled after the first few, and 37% are making little progress or have as yet no projects (11%), including 7% of the largest organizations.
- **36% have no access to workflow capability, plus 13% who have it but don't use it.** 34% make use of basic workflows in imaging systems or SharePoint, 17% have full workflow/BPM.
- **The biggest benefits reported from paper-free processes are faster customer response (43%), then productivity and compliance, then better monitoring of the workflow.** The biggest lessons learned were to establish executive buy-in, and to gather input from all stakeholders in advance.
- **59% achieved a payback in less than 12 months from their paper-free projects, including 26% in 6 months or less.** 84% achieved payback in less than 18 months – the highest we have ever recorded.

Mobile Capture

- **24% are not looking at any mobile projects and 39% are still in the planning stage.** 12% see mobile access, data capture and forms input as a required option for any process update.
- **For those with mobile capture projects, speed of data availability and keeping paper out of the process have been the biggest benefits.** Connection bandwidth, connection security and device security have been the biggest issues.

Cloud and Outsourcing

- **11% are already using cloud products for capture, and 17% have plans in the next 12-18 months.** 21% are unlikely to use cloud (down from 25% in 2014) and 49% still have no policy or decision on cloud capture (21%) or cloud in general (28%).
- **Data capture is the biggest growth area for outsourcing, along with managed capture services. Archive scanning and back-scanning still have growth – as does shredding.** Box storage is still popular, but in decline. Managed print services and outbound print are stalled.

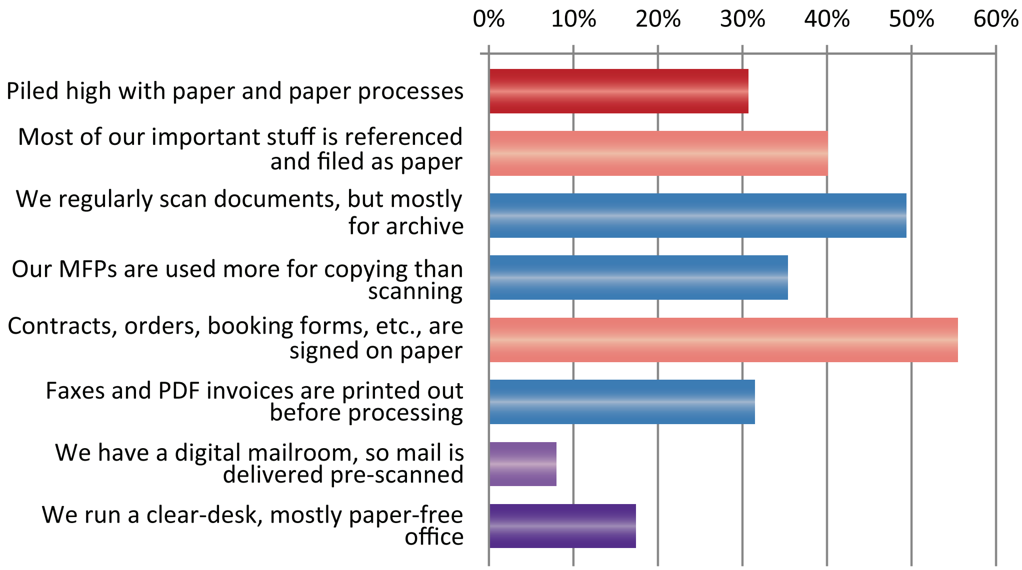
Opinions and Spend

- **80% agree that paper content and processes are a huge impediment to remote access and teleworking.** 72% feel that "business at the speed of paper" will not be acceptable in 5 years' time.
- **57% say they are committed to digital transformation, and paper-free is an essential starting point.** 79% agree that all businesses should have an e-signature mechanism.
- **Workflow/BPM and mobile data capture are set for the strongest growth. Capture, OCR and AP are still strong, then mobile image and MDM.** Some MFP growth is likely, but scanners are mostly flat - although this is an improvement on 2014 projections.

Paper in the Office

Despite the shiny minimalist images of office life that grace the world of architecture and advertising, the reality for many is that paper still has a strangle-hold on their personal office space, and on most of the processes they are tasked with. Nearly a third of our respondents describe their offices as piled high with paper and bogged down with paper processes. 40% still feel the need to reference and file their important documents on paper, and 56% of organizations still require contracts, orders and booking forms to be signed on paper.

Figure 1: Which of the following would describe your office or typical offices in your organization? (Check all that apply) (N=362)



Most have the equipment needed to scan documents, but 35% say their MFPs (multi-function printers) are used more for copying than for scanning. More and more invoices arrive electronically as PDF attachments or on fax, but 32% print them out before processing.

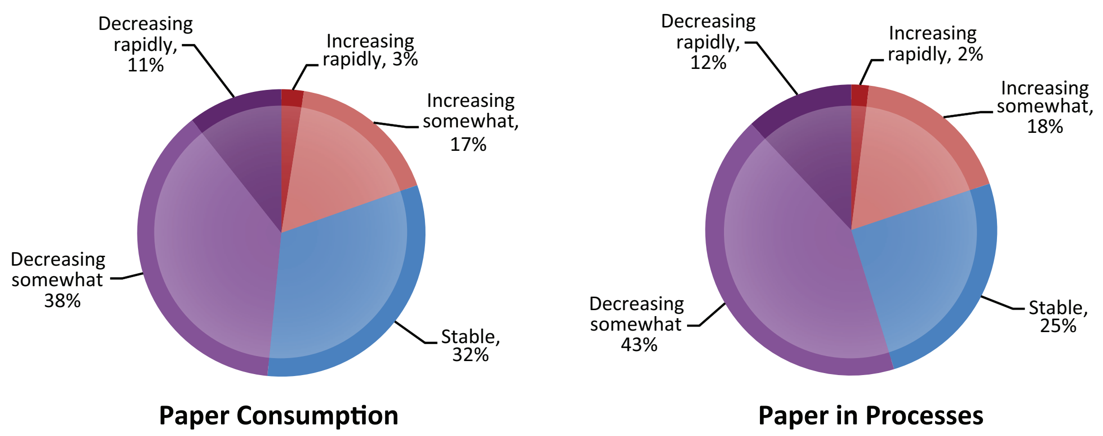
In contrast, just 17% run a clear-desk, mostly paper-free office, and 8% assist this by delivering inbound mail pre-scanned via a digital mailroom.

Paper Consumption

However, despite this somewhat frustrating picture, progress is being made. Although 20% of respondents report that consumption of paper is increasing in their organization, 49% report a decreasing trend, resulting in a net of 29% decreasing. In our 2014 survey, this figure was 23% and 4 years ago in 2011, there was just a slim 3% difference between increasing and decreasing.

Progress in paper-free processes is even better with 55% reporting a decreasing trend, with the net of 35% decreasing having jumped from 21% in 2014 and 22% in 2011. For 12%, paper in the process is decreasing rapidly.

Figure 2: Would you say that in your organization the consumption of paper/amount of paper in your processes is: (N=358, excl. 5 Don't Know)



Industry Watch

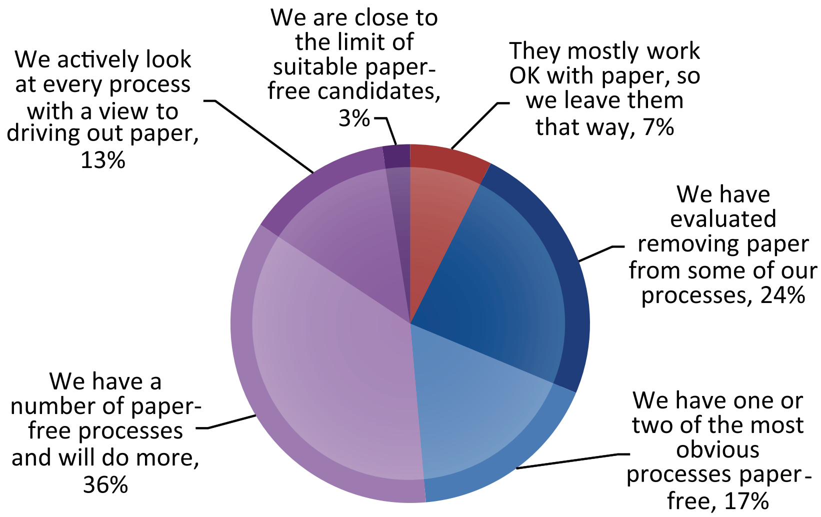
Paper-Free Progress: measuring outcomes

Paper-Free Progress

As we will see later, making progress towards paper-free processes needs to be seen as a continuous improvement campaign, with the policy that every process should be reviewed for the potential to drive out paper. 16% of our responding organizations do this, although only 3% report that they have nearly reached the limit of suitable paper-free candidates. For the largest organizations, this rises to 19% with a pro-active policy, although not surprisingly, it's even harder for these bigger businesses to reach the goal (2%). On the other hand, it is surprising that 21% of these large organizations have yet to move beyond the evaluation stage, with a further 17% having just one or two of their main processes paper-free.

Compared to our 2014 survey, the number of organizations with a pro-active policy has increased from 9% to 16%, and those with a paper-only view has dropped from 11% to 9%.

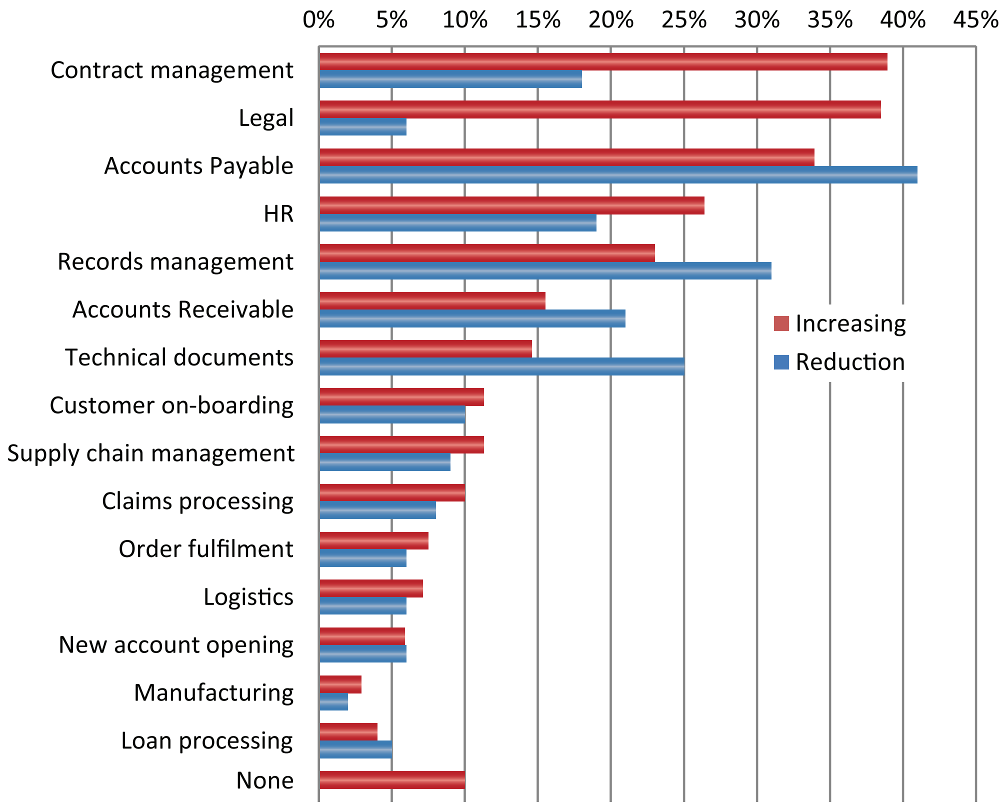
Figure 3: How would you describe progress towards eliminating paper from your business processes? (N=364)



Paper-Free Candidates

Across different vertical industries there are obviously many, many different processes, but in Figure 4 we have listed some of the more common ones, and asked our respondents to firstly judge where paper is continuing to increase (in red), and then to tell us where they have made the most progress in reducing paper (in blue). In general, contract management and legal processes are showing the biggest increase in paper, and our respondents are evidently struggling to achieve reductions here. On the other hand, accounts payable is showing the next biggest increase, but is also the best candidate for paper reduction. Records management, accounts receivable, and in particular, technical documentation are also good candidates for reduction, followed by HR.

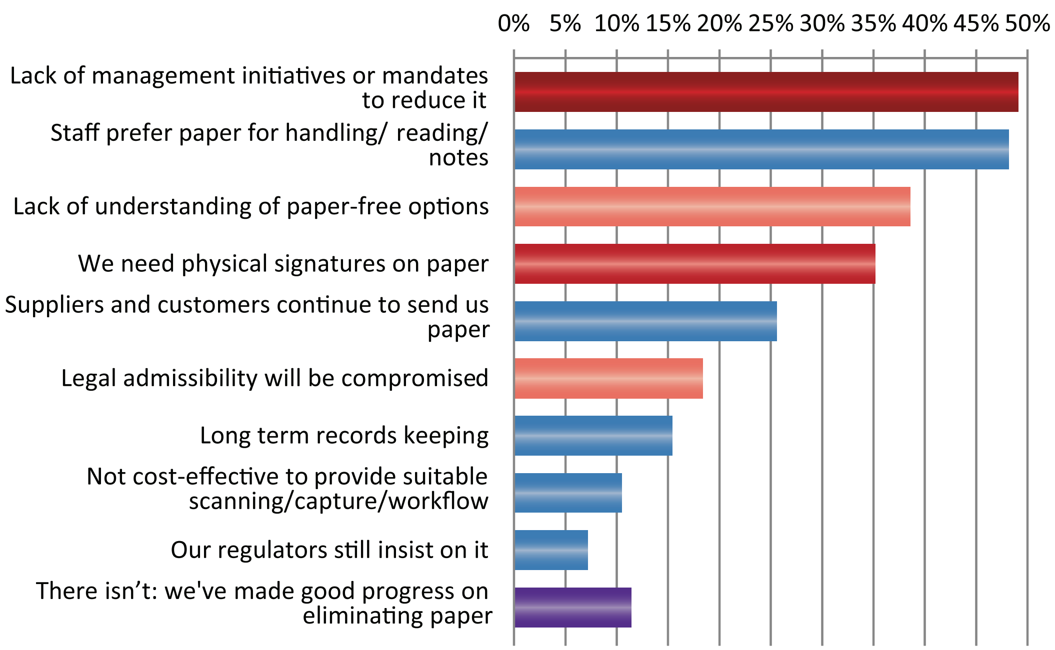
Figure 4: In which of the following processes is paper increasing/have you achieved a reduction? (N=364)



Barriers to Paper Reduction

It is often said that "people like paper" (and we all know that they don't like change), and this is given as a strong reason (49%) that there is so much paper in the business. However, an equal number give the lack of management initiatives or mandates as the biggest reason, and despite AIIM's long campaign to educate business on paper-free benefits, 39% feel there is a lack of understanding of paper-free options. The perceived need for physical signatures shows up as the 4th most likely reason (35%), along with legal admissibility (18%) - despite the long history of both standards and legislation on this point.

Figure 5: Why do you think there is still paper in so many of your business processes? (Max THREE) (N=332)



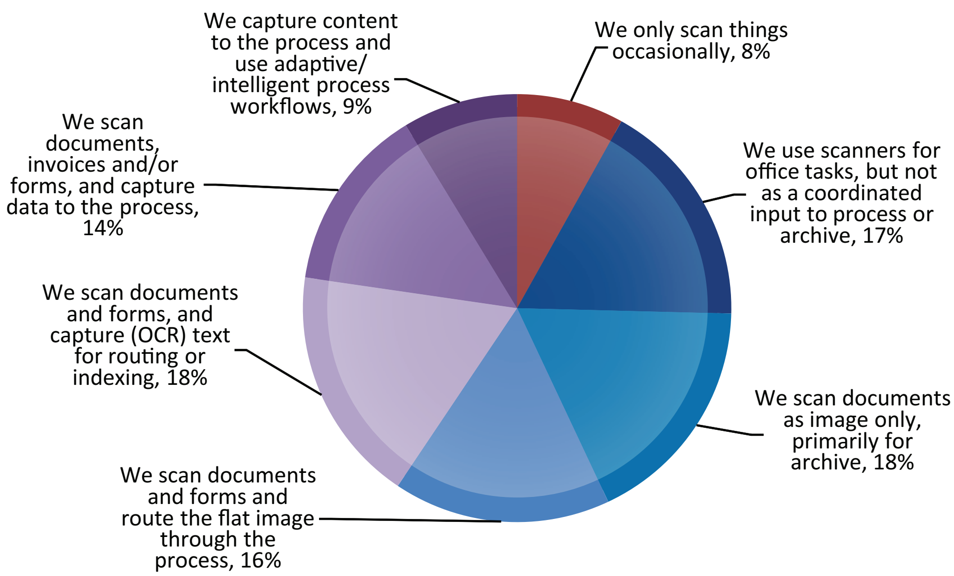
Better progress is being made towards paper-reduction compared to previous years, particularly in AP, AR, technical documentation and HR. People factors are an issue, and signatures is still a major barrier, but so is the lack of management initiatives to overcome these.

Capture

Beyond ad hoc scanning in the office, document digitization covers a wide spectrum from, image scanning simply for archive, through imaging workflows, to OCR recognition and data capture. The results of recognition can automate routing to the appropriate workflow, and also populate the search index. The extracted data may also be used to populate a process such as accounts payable or customer on-boarding. More recent advances use machine intelligence to automate classification of documents and to adapt the process workflow depending on the content (and context). These “smart” techniques can be used on any digitally originated content as well as scanned paper documents.

In our survey, 34% scan flat images only, 16% for workflow and 18% for archive. 41% are using OCR in some form, with 23% capturing process data. 9% are using this data for intelligent or adaptive workflows to optimize complex case management, and to “lock-in” compliance.

Figure 6: How would you describe the highest level of capture maturity in your business unit (across in-house and outsource)? (N=335)



There has been a sharp rise in the use of OCR from 21% in our 2013 survey to 41% now. Although this rises to 47% of the largest organizations, the difference is mostly down to those using OCR for routing or indexing, with the numbers capturing to the process and/or using adaptive workflows being almost identical across company sizes.

Drivers for Capture

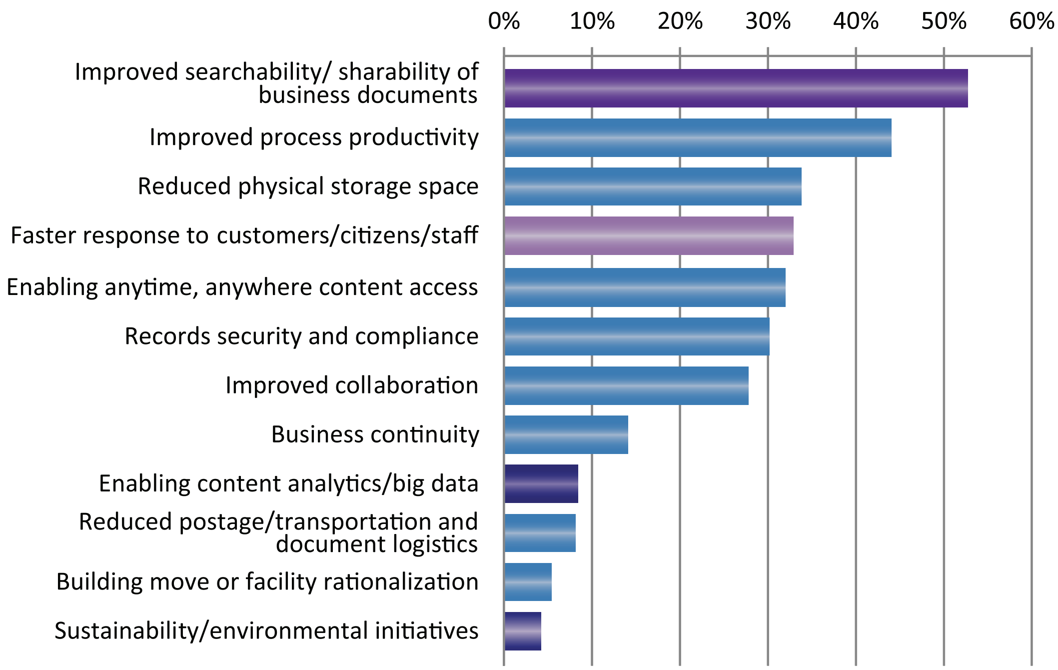
As we all know searching for paper documents is tedious and requires physical proximity to the file cabinet. Hence the fact that improved shareability and searchability is given as the biggest driver for scanning and data capture. We also know that hand re-keying of data from forms and orders is time-consuming and error-prone, and that physical handling of paper within the process saps productivity. We also know that the elapsed time of response in a paper process far exceeds the actual process time itself. Eliminating these physical transport blocks and in-tray queues dramatically improves speed of response to the customer – whether actual customers or internal customers.

Once all documents are equal, whether they came into the business on paper or electronically, they can all be accessed anywhere at anytime – important for collaboration and a crucial factor when travelers and home workers are involved. It is also a key issue for business continuity in the case of incidents, disasters or just bad weather.

As organizations look to maximize the business value of their stored content by utilizing big data analytics, there is a new need (6%) to digitize existing paper records, or to run recognition and capture processes across legacy image stores.

Disappointingly for keen environmentalists, sustainability is the lowest ranking driver (from the maximum choice of three), although as we will see later, 22% of organizations do have an environmental policy to reduce the use of paper.

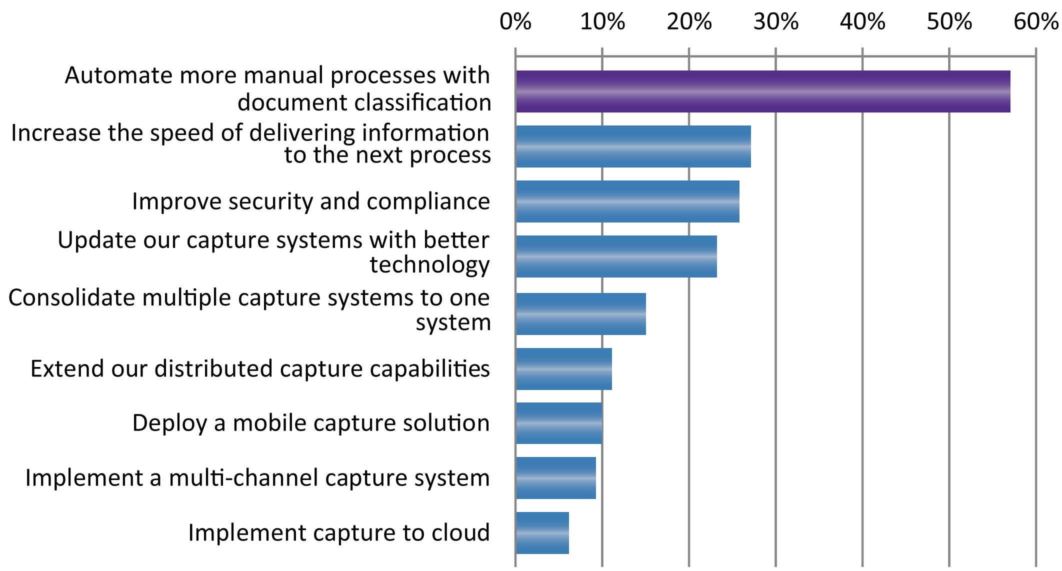
Figure 7: What would you say are the three biggest drivers for scanning and data capture in your organization? (N=334)



Capture Priorities

When it comes to priorities for capture projects, over half (57%) are looking to automate more processes using document classification, 27% need to increase the speed of delivery to the next process, and 26% want to improve security and compliance. 23% are looking to upgrade their capture systems to take advantage of the most recent improvements in capture technology, and 15% will take the opportunity to consolidate their existing systems.

Figure 8: What are your immediate priorities to improve your current capture system(s)? (Max TWO) (N=202)



Improved accessibility, higher productivity, and faster response to customers are the biggest drivers for scanning and capture, along with reduction in office space. Automating more manual processes is the biggest priority for users, and 23% are looking to invest in better technology.

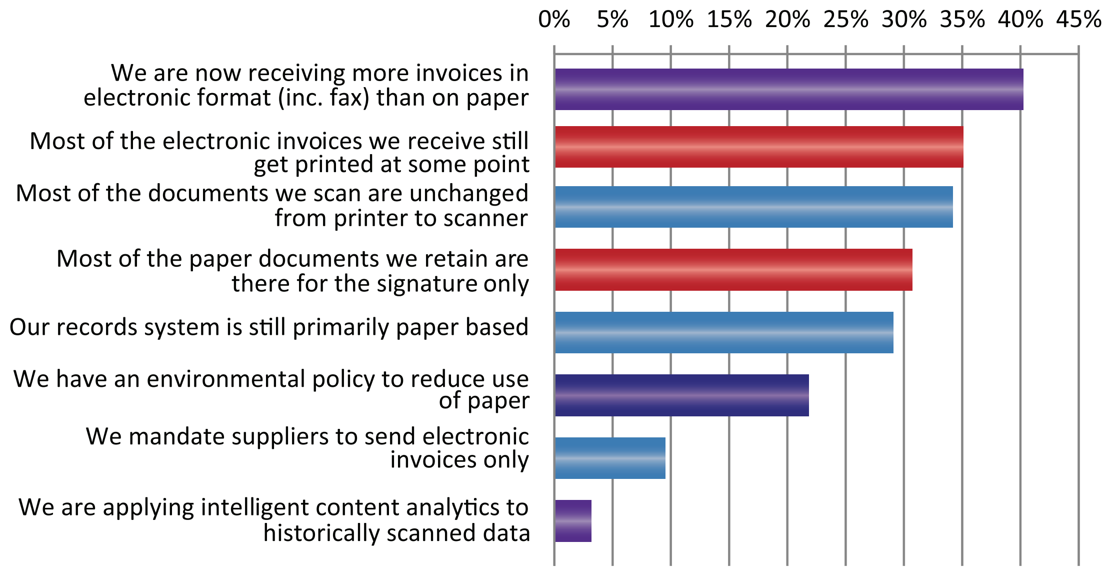
Paper or Digital at the Door

We asked about the increase or decrease of paper correspondence, documents, invoices and forms arriving at the door of the business, and the answers are very similar to the amount of paper in the office itself – still increasing for 19%, but decreasing for 45%. On the other hand, the amount of inbound digital documents is increasing for 73%, including 13% where it is increasing rapidly. As an example, 40% of organizations have passed the 50% threshold of digitally delivered invoices, including 10% who mandate suppliers to only send invoices electronically.

Of course many organizations have limited ability to reduce the number of inbound documents, although often it is a function of their chosen mechanism of process initiation, with a reliance on paper forms and signed orders. In other cases it is compliance-driven, although in many financial areas this is frustrating for customers and intermediaries, who would much prefer to use e-forms and digital supporting documents.

Even when inbound documents are digitally delivered, the way that users deal with them varies considerably. 35% agree that most of the electronic invoices they receive get printed anyway at some point in the process. 34% agree that most of the documents they scan are unchanged from printer to scanner. And where additions such as signatures are made, there seems to be a (mistaken) view that these must be retained as paper documents.

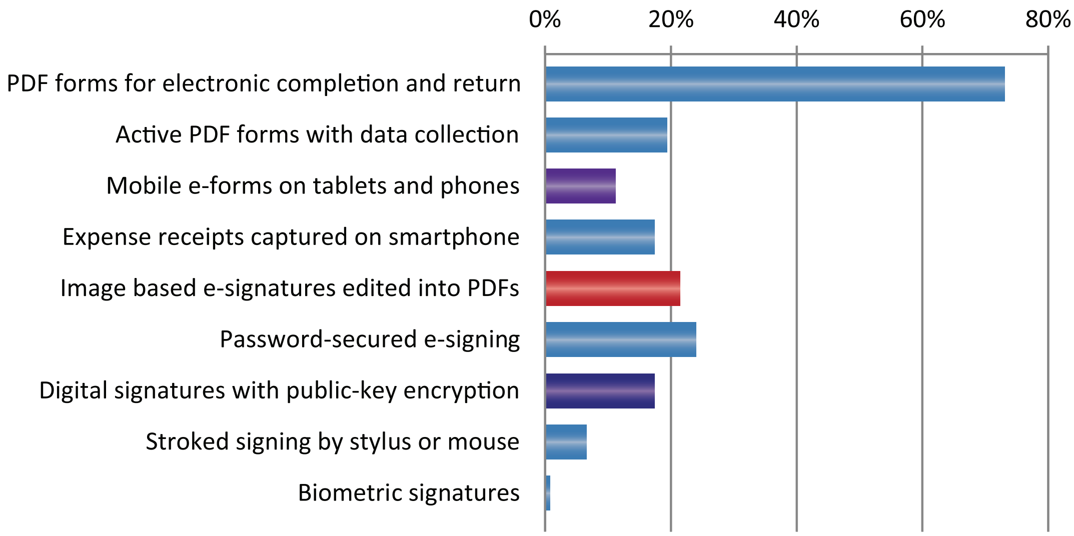
Figure 9: In general, which of the following apply in your business unit? (N=316)



PDF Forms and E-Signatures

Exploring the issues around PDF forms and electronic signatures, we find that although PDF forms for electronic completion are widely used (75%) only 19% are using them as true e-forms for active data collection – perhaps a reflection that Adobe has never made this a simple mechanism to set up in Acrobat. The real revolution in electronic form-filling is arriving on mobile devices, particularly tablets, although only 11% are currently taking full advantage of this. An increasingly popular application (used by 17%) is for filling in expense claims on mobile devices, along with the image capture of receipts using the built-in camera.

Figure 10: Do you use any of the following for forms and signatures? (N=242)



Along with forms go the inevitable signatures, which can all too often stop a paper-free process in its tracks. Printing the document, signing it, and scanning it back in is tedious (and slightly dubious if, say, only the signature page is printed and re-scanned, rather than the whole document.) Although unlikely to pass the test of authenticity, integrity, enforceability and non-refutability, pasting signature images into a PDF document is a very common way of signing documents, and one to which 22% of our respondents are prepared to admit. Adding a degree of password security to the process via directory services improves things somewhat, but that is unlikely to work well outside of the business. Digital signatures with public-key security and encryption are a best-practice solution used by 17%, but their use tends to be confined to regular and authoritative signatories such as hospital consultants, safety inspectors or lawyers. There are a number of other e-signature solutions and technologies of varying levels of legal acceptability between these two, some of which are primarily for internal use, and others for use with customers and suppliers.

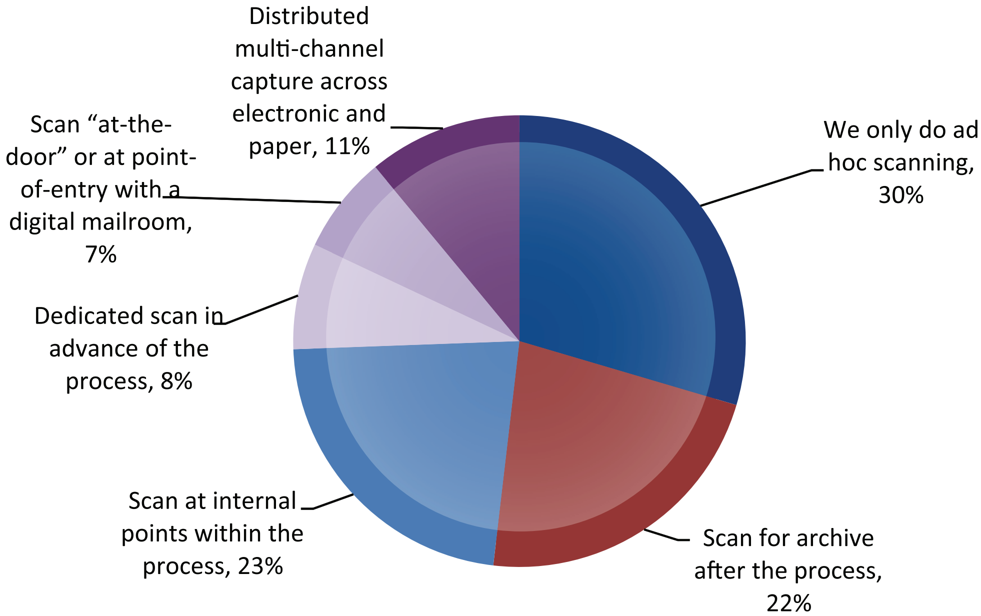
There are other alternatives around mobile devices, including signature imaging and stroke signing with a stylus, as per the ubiquitous delivery driver. This can now be made more sophisticated and identifiable with biometric analysis of the stylus pressure and speed of movement. Fingerprint recognition has also come to the fore of late with mobile phone payments, and we can expect to see other process approvals making use of this inbuilt mechanism.

Digital Mailroom and Multi-Channel Inbound

We mentioned before that capture maturity can be wide-ranging. It does not just refer to the level of image recognition used, but also to the point in the process where scanning and capture take place. The earlier in the process that content is scanned, the greater the benefits of electronic routing, process monitoring and compliance logging. Scanning at the door or point of entry in a digital mailroom scenario brings these benefits to the maximum number of content types and utilizes the capture system across multiple processes. With modern systems, the digital mailroom can also be distributed to branch offices or remote operations, and extended across multiple inbound channels.

We can see in Figure 11 that 26% are scanning in advance of the process, including 7% using a digital mailroom, and 11% with multi-channel capture. 23% scan at some point within the process and 22% scan for archive after the process, which may improve the searchability of the records archive, and reduce storage space, but does little for the efficiency and response of the process itself. Intriguingly, European organizations are slightly more likely to use a digital mailroom or distributed multi-channel than those in North America (24% versus 18%), and they are much less likely to scan after the process – only 10% compared with 26% in North America.

Figure 11: Which of the following best describes how you mostly deal with inbound documents and forms in your business unit (in-house or outsourced)? (N=328)

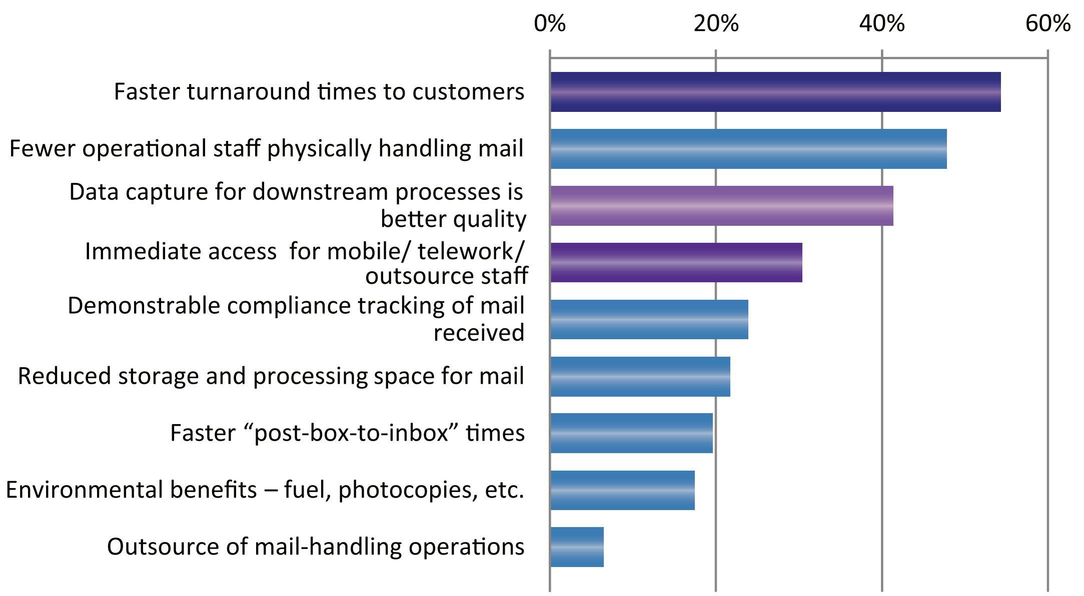


Digital Mailroom Models and Benefits

There are a number of ways to configure a digital mailroom system. One or more centralized, high-throughput floor-standing scanners is the first that comes to mind, and this is used by 25%. A further 12% use the same concept, but with multiple desktop production scanners. 21% have a much more distributed model with capture taking place at branch offices and subsidiaries, and the majority, 40% have a hybrid of these centralized and distributed models.

The biggest benefit cited by digital mailroom users (54%) is faster turnaround to customers, eliminating days, if not weeks in the back and forth cycle of correspondence. Reduction or redeployment of staff physically handling mail is the next biggest benefit (48%). The ability to invest in more sophisticated equipment that is shared between multiple operational units results in improved data capture quality for downstream processes, cited by 41%. Then comes immediate access for mobile, telework or outsource staff, able to see the day's post even when not on the premises. There are also compliance benefits where the logging and tracking of customer correspondence is important.

Figure 12: Which aspects of digital mailrooms are proving the most beneficial? (Max THREE) (N=46 using digital mailroom)

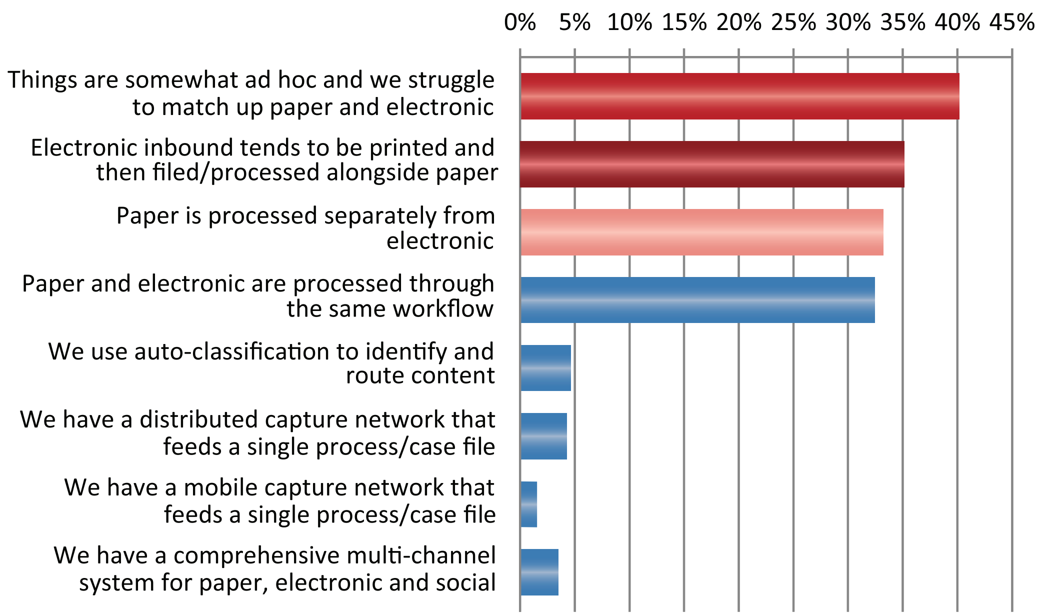


Multi-Channel Inbound

Organizations have only recently begun to face up to the demands of mixed digital and paper streams of multi-channel inbound traffic. Rather than disrupt well defined paper capture processes, many set up separate routings for electronic forms or invoices, thereby limiting flexibility and adding to management overheads. Social media input was initially the concern of the PR department, bypassing customer services completely. All of these approaches detract from the goal of “a single view of the customer, up-to-date, and accessible by all”. Ominichannel is the term now increasingly used to include social media, chat text, Facebook messages, etc.

In our survey, 40% reported that they still have an ad hoc approach to mixed media input, and often struggle to match up paper and electronic correspondence. Perhaps worse still are the 35% who print out electronic inbound content and process it alongside the paper. Although 32% process paper and electronic through the same workflow, only 4% have a distributed capture network that feeds a single process or case file, and only 3% have what they would describe as a multi-channel system for paper, electronic and social.

Figure 13: How do you deal with multi-channel inbound content? (Check all that apply) (N=305)



40% have an ad hoc approach to mixed media input, and 35% print out electronic inbound content and process it alongside the paper. Only 3% have a multi-channel system for paper, electronic and social.

Process Optimization and Workflow

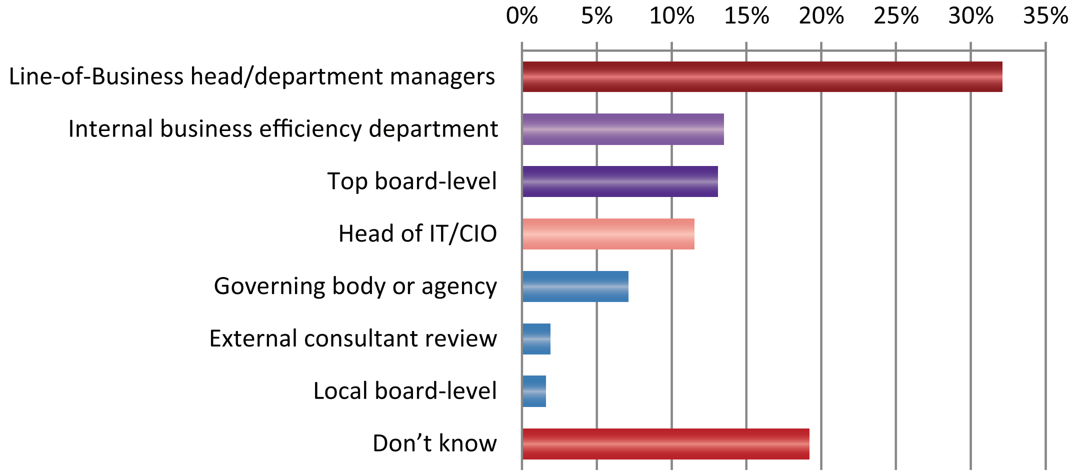
There is no doubt that moving to paper-free working for key business processes is a radical change that will have implications for staff disruption, business risk, compliance, and, of course, competitive performance. Depending on the degree of autonomy, the business unit may be responsible for reviewing their own processes with a view to radical change, and this is the situation in 40% of the organizations surveyed. One of the problems here, as we saw earlier, is that LOB managers may not be fully aware of the paper-free options. When they do look for solutions, they may well be viewed and evaluated in isolation from other potential applications. And of course, many LOB managers may be risk-averse when it comes to process change in their own department.

One alternative is that the head of IT is responsible for radical review (14% of organizations). Although they may take a much wider view, and also be more aware of the options, IT are likely to be under pressure in many areas, and may take an approach based on fixing broken processes, or prioritizing those driven by regulatory change, rather than optimizing all processes across the business.

A third of organizations would appear to have a better strategic decision-making process, allocating radical change either to a specific business efficiency department, or to the top-level board itself. The board may also call in external consultants, who In our experience would be able to give an objective view based on their experience of similar businesses. Surprisingly, only 2% of respondents place them at the center of radical review.

It is perhaps telling that 19% of our respondents are unable to name who would be responsible for radical process review in their organization, suggesting that strategic decisions may be made in a somewhat ad hoc way.

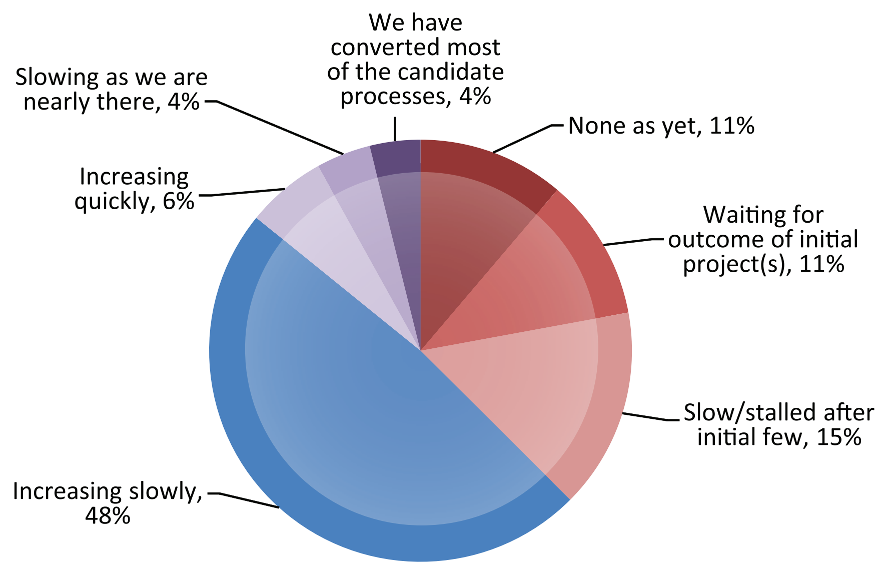
Figure 14: Who is responsible for radical process review in your organization? (N=312)



Rate of Paper-Free Conversion

As we saw earlier, the progress on paper-free projects varies enormously. 14% are moving quickly or have even completed, and 48% are converting at a slowly increasing rate, but 26% are making little progress, and 11% have not yet started (including 7% of the largest organizations). For some organizations there seems to be a break point after the initial few projects, with 15% stalled at this level, despite the strong ROI that is reported from the completed processes.

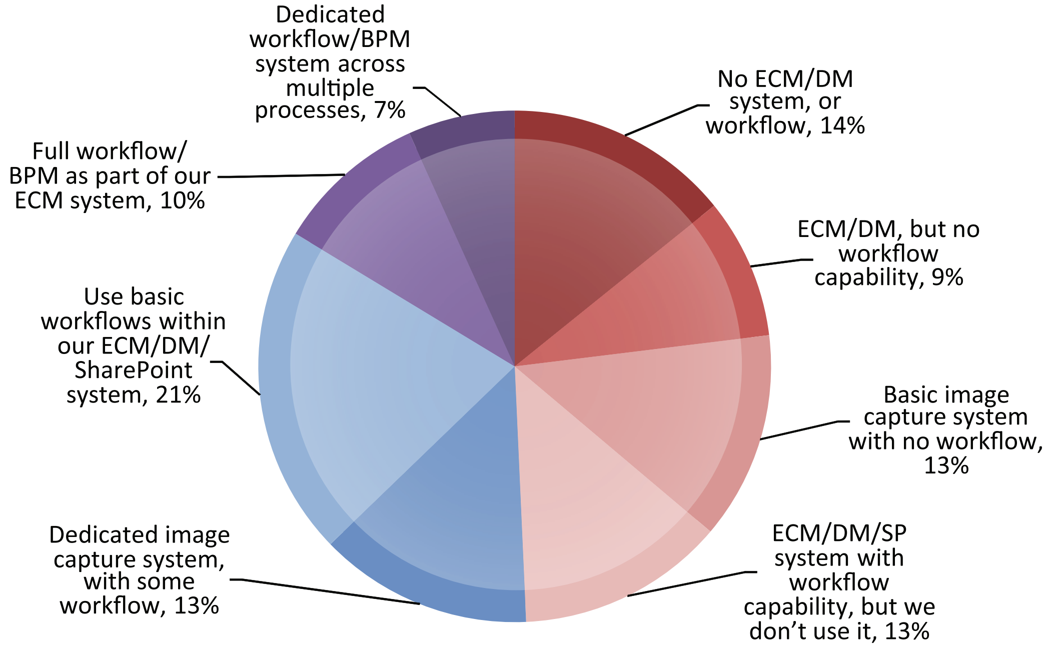
Figure 15: At what rate (or planned rate) are you converting key processes to paper-free? (N=292, excl. 26 Don’t Know)



Workflow Capability

In order to implement paper-free processes beyond initial scanning and capture, some form of BPM or workflow system is needed. Nearly a half of our survey (49%) have no workflow capability (or no ECM/DM system) including 13% who have the capability but don't use it. SharePoint and most ECM/DM systems provide a degree of workflow management, albeit not always easy to use without add-on products, and 34% of our respondents use these basic workflows. 17% have full workflow or BPM, either as part of their ECM system (10%) or as a dedicated BPM system in use across multiple processes. The difference between large and small organizations is not as great as one might expect, with 20% of the largest having a BPM capability, 17% of mid-sized, and 14% of smaller organizations.

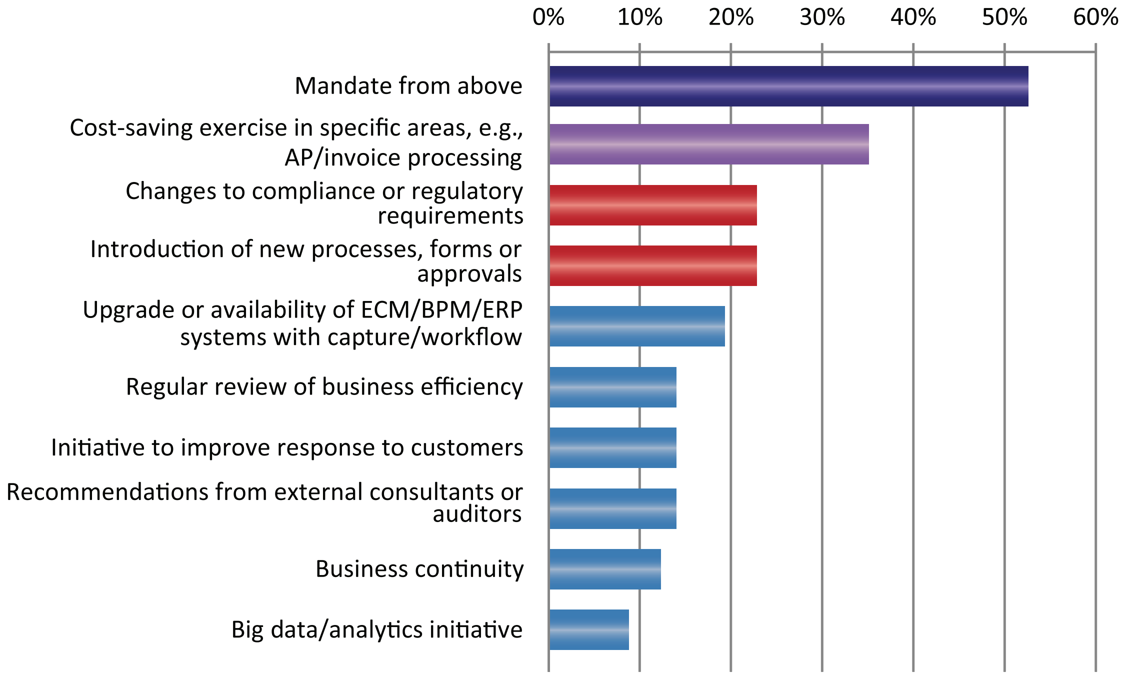
Figure 16: How would you describe the level of workflow/BPM capability that you have for paper-free processes? (N=282, exc. 28 Don't Know)



Triggers for Action

We asked those with no paper-free processes what would be the most likely trigger to set them off on their first implementation. Reflecting the result earlier in the survey, the most likely pro-active trigger would be a mandate from above. A cost saving exercise in a specific area would be the next most likely. Then come two re-active triggers – changes to compliance or regulatory requirements, or introduction of new processes, forms or approvals. In financial organizations in particular, where such changes happen frequently, it would be much better to have the right infrastructure in place in advance. 18% indicated that availability of a workflow system or an upgrade to their ECM capability could also trigger paper-free projects.

Figure 17: What would be the trigger(s) to set you off on your first paper-free process implementation? (Max THREE) (N=57, no paper-free processes)

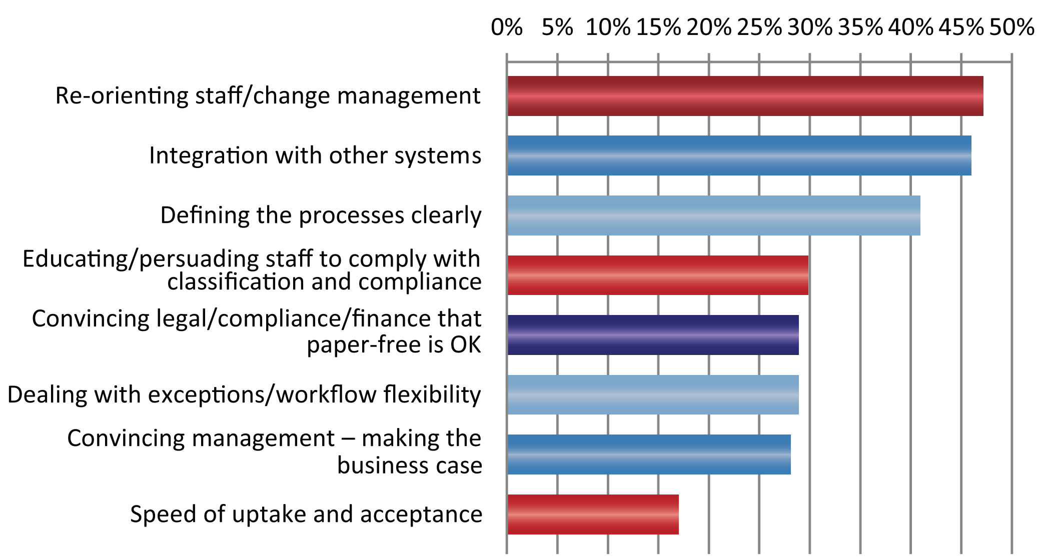


We also asked existing users what would trigger them to convert more processes to paper-free. Again, specific cost-saving exercises was the most cited (47%), along with regular reviews, then initiatives to improve response to customers and shortening of end-to-end cycle times (30%). Providing self-service for employees, customers and citizens, along with adapting to the changing workforce would be a potential trigger for 20%. Big data initiatives could be a trigger for 9%.

Paper-Free Issues and Outcomes

As with all changes to working practice, it is the human issues that come to the fore - managing change, instilling the compliance requirements, and sustaining progress. Defining the process and mapping exceptions might also be seen as a human issue, as over time, procedures tend to give way to the pragmatic manner in which work gets done, and it can take effort to establish just what the process steps are and how exceptions are dealt with. Convincing the legal department and compliance officers was reported as a difficulty by 29% - slightly higher than needing to convince management of the business case.

Figure 18: What were the main difficulties you encountered in these paper-free process projects? (N=235)



Lessons Learned

Get executive buy-in and solicit input from all stakeholders are the two key recommendations from our users, along with taking the opportunity to re-think the whole process rather than "paving the cow path". 36% cite the importance of standards and best practice advice, and 34% feel it is important to have at least one team member with experience or training qualifications. 24% suggest doing research to overcome the "it's against the regulations or the law" argument.

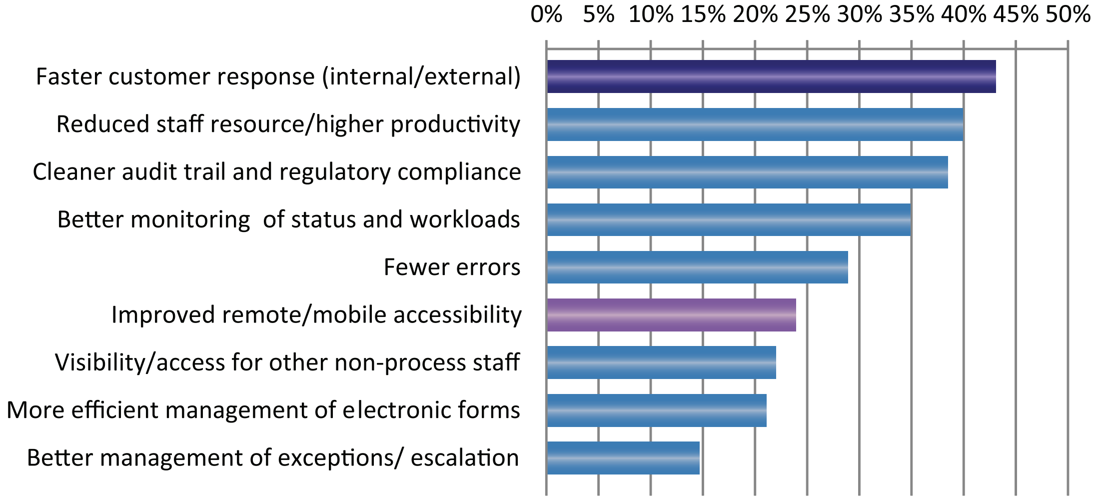
Figure 19: What are the key lessons have you learnt so far from your paper-free processes? (N=233)

Paper-Free Benefits

Based on user outcomes, faster customer response is the biggest benefit from paper-free processes, followed by improved productivity, and cleaner audit trails for regulatory compliance. Additional benefits include better monitoring and visibility of the process workflow, and fewer errors in the process.

Improved remote and mobile access is not high on the list, but this is probably a reflection of back office workers being less likely to work out of the office. It does have big implications for the use of external services, and for business resilience. Better management of exceptions and escalation is an increasing benefit as more adaptive and case-oriented systems are building-in intelligence that can drive flexible workflows, while still maintaining compliance.

Figure 20: What have been the three biggest benefits from your paper-free processes? (N=218)

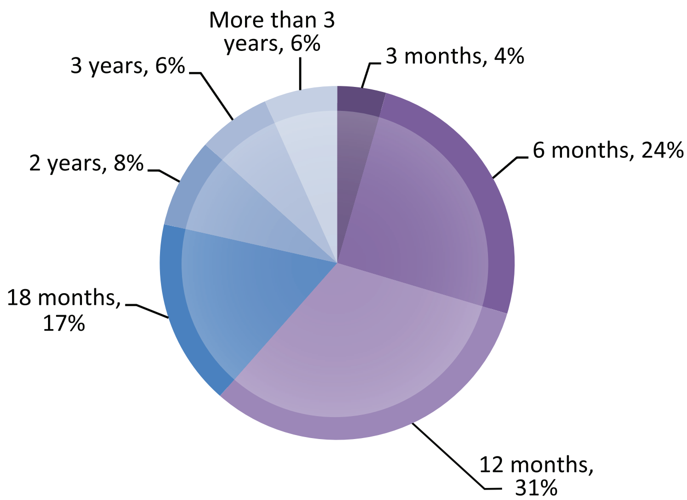


Metrics for Success and ROI

We asked our respondents for the two top criteria used to measure the success of paper-free projects. As well as general benefit to the business and ongoing cost savings, process cycle times is a key metric, along with customer response times. Compliance and audit success is also deemed to be a measurable outcome. Time to value or payback period is a key parameter for just 18%, although paper-free projects can show dramatic returns in this area.

59% of our users achieved payback in 12 months or less (a single budget cycle) including 28% seeing positive returns after just 6 months. 84% were in positive territory within 18 months or less. These are amongst the highest ROI rates that have ever been reported to us – for capture projects, or any other ECM investments.

Figure 21: Overall, what would you say has generally been the payback period for these paper-free process projects? (N=139, excl. 102 Don't Knows)



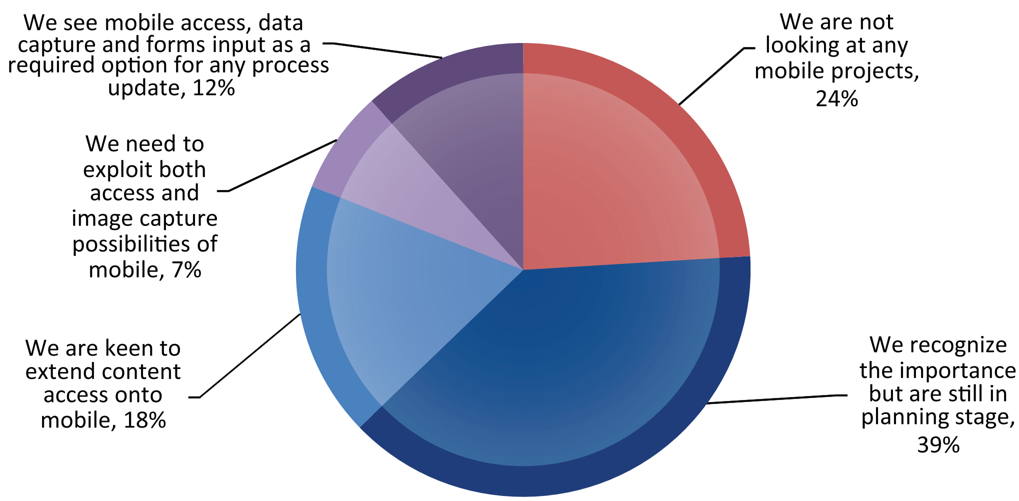
84% of users report ROIs from paper-free projects of 18 months or less, and 59% within 12 months. The biggest benefits are faster customer response, improved productivity, and better compliance.

Mobile Capture

We saw earlier that capturing as early on in the process as possible is important, and many processes start off in the field or at the customer's premises, or with the customer themselves. It is therefore important that every opportunity is taken to utilize the capabilities and advantages that these devices offer for remote access to process content, image recording, and direct input to the process via e-forms.

Only 12% of organizations are putting mobile options as a key element of any process update, although 25% see the need to do so. 24% have little interest in mobile.

Figure 22: How are you looking at mobile devices for content access and data capture? (N=293)

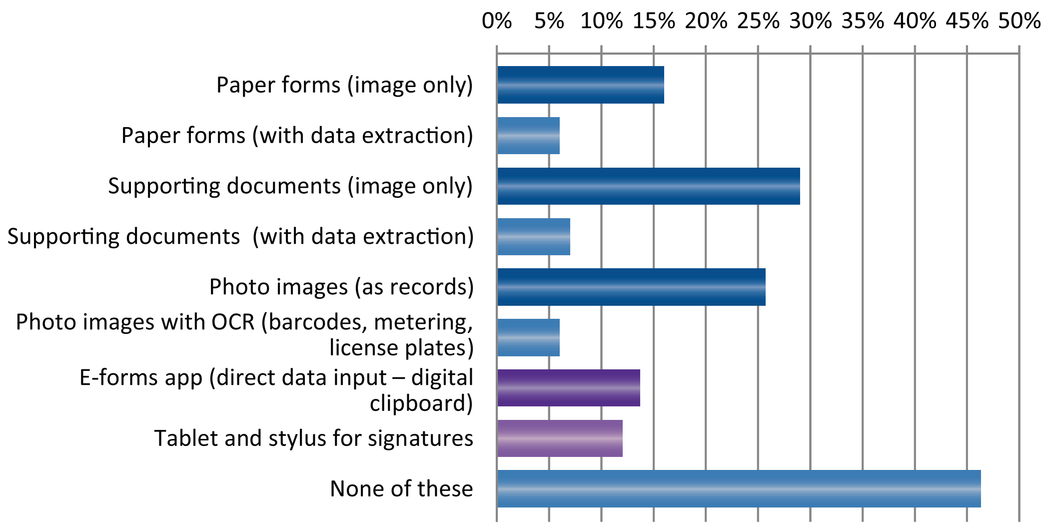


Portable Devices

Image-only mobile applications are more prevalent – with 20-25% scanning supporting documents, photo-images and forms. Only 6% are using OCR/image recognition. Partly this is due to the processing power involved if carried out on the device, although uploading to a cloud image recognition engine can also be used. Rather than use forms recognition from paper, it is much more efficient to treat the mobile device as an electronic clipboard, entering data onto e-forms directly. Not only does this speed up data capture, but it also reduces the logistics of forms distribution and subsequent collection.

Of course, there are many applications in inspection, metering and claims where the photo image itself forms part of the record to be sent back to base, and this could also include an image of an approval signature. Using a stylus to capture the signing process is more sophisticated, particularly with the biometric parameters that can now be included for better verification.

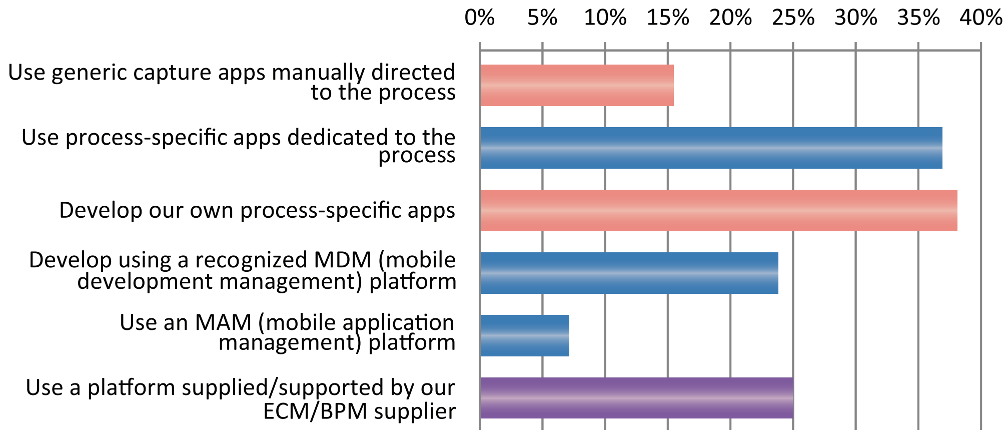
Figure 23: Do employees/field staff in your business unit currently use portable devices (portable scanners, smartphones, tablets) for any of the following? (N=151)



Mobile Implementation

Many of the initial applications for mobile have been implemented as in house developments (38%) but with the greater availability of MDM (Mobile Development Management) and MAM (Mobile Application Management) platforms, this has become more robust and secure than it otherwise might be. Certainly using generic capture apps and manual interfaces or uploads to the process is best avoided for those reasons. 25% of our respondents are using the mobile platform from their ECM or BPM supplier, and this is likely to increase as more become available. These are likely to offer better support and without the need to retain in-house expertise, and as we can see in the next section, keeping up with device changes and user OS preferences can take considerable resource.

Figure 24: Which of the following approaches are you taking for your mobile capture projects? (N=84 with mobile projects, excl. 67 Don't Knows)

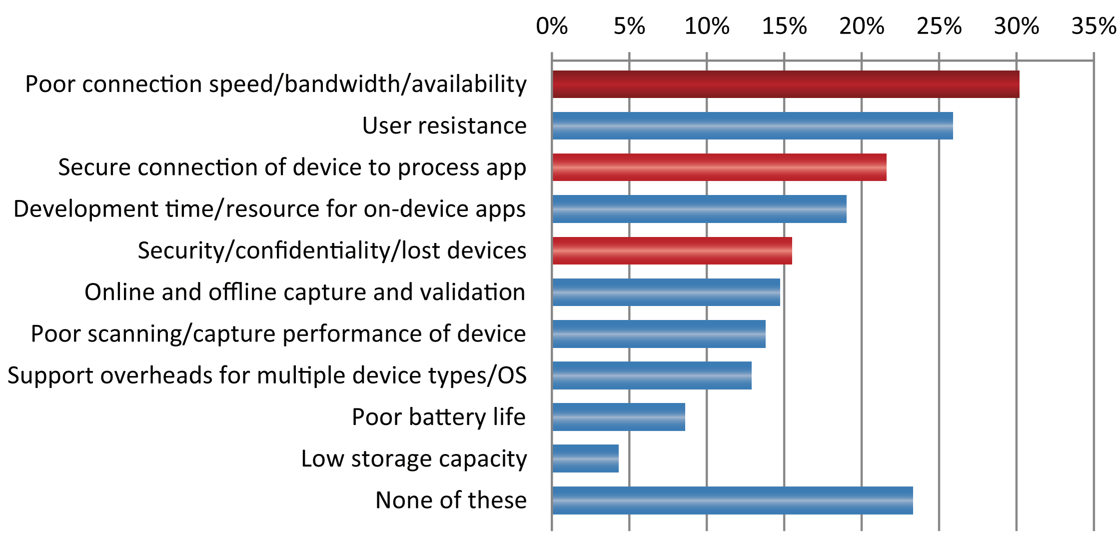


Mobile Capture Issues

The biggest issue reported from those with mobile capture applications is one that we all have experience of – the lack of signal or poor connection bandwidth just at the critical moment. Of course, design of the app can be vital here, often needing to maintain security of device-cached images prior to a delayed update to the process. User resistance is more of a surprise, but again showing that even technical novelty cannot be relied on to smooth over changed practice.

Of course, secure connection of the device to the back-end application is an issue, along with the security of the device itself, and the risk from lost devices.

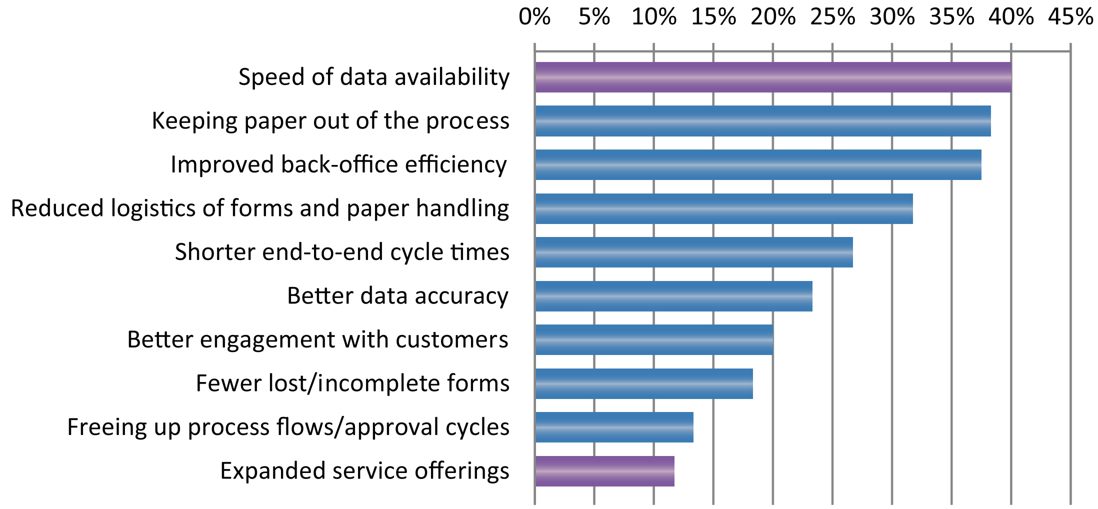
Figure 25: What issues have you encountered with your mobile/portable capture projects? (N=116 with mobile projects)



Mobile Capture Benefits

Capturing content on mobile and connecting direct to the back-office process gets the data into the system much faster than waiting for the field worker to get back to base, and much, much faster than submitting paperwork to head office. Keeping this paperwork out of the system is also a benefit in itself, and that in turn enhances back-office efficiency. Shorter end-to-end cycle times and better data accuracy are also welcome benefits. In many industries such as banking, or real estate, mobile apps provide the opportunity to offer expanded service offerings.

Figure 26: What have been the three biggest benefits of your mobile/portable capture projects? (N=120 with mobile projects)



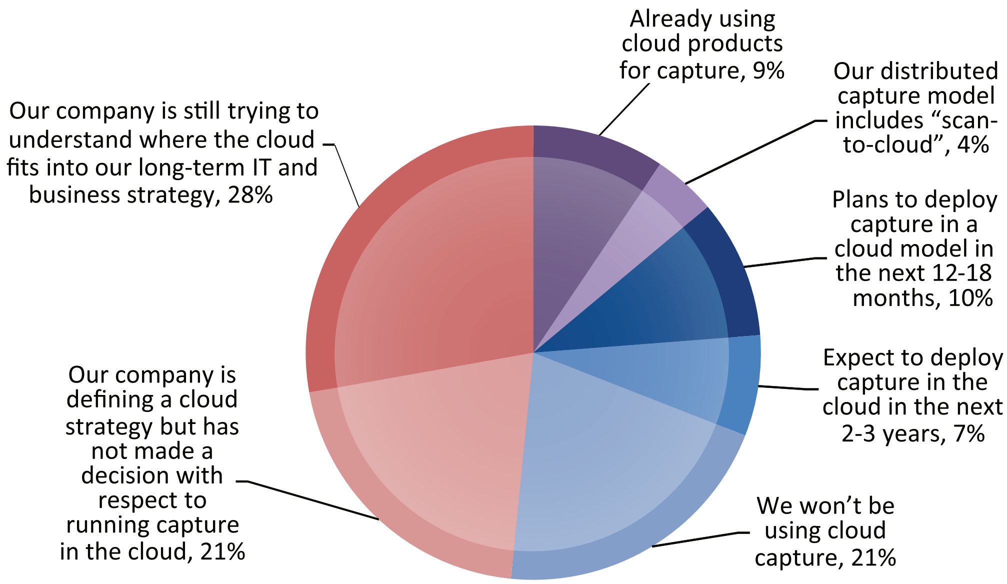
63% are yet to get serious about mobile capture, with 46% using no mobile apps of any type. The biggest issues are connection speed and connection security, and the biggest benefits are speed of data availability, improved productivity, and overall reduction of paper.

Cloud and Outsourcing

There are a number of different ways that cloud can be a feature of capture processes. These days the available bandwidths present no real restriction on both storage and application locations – at least for much of the globe. Connecting scanners direct to cloud repositories is useful for distributed operations. Utilizing SaaS capture products can be more cost effective than in-house investments, and these days, ECM, BPM and even back-office systems can be cloud-based.

11% are already using cloud products for capture, including 4% with distributed capture-to-cloud. 17% have plans. 21% are unlikely to use cloud, and a huge 49% still have no policy or decision on capture or any cloud apps.

Figure 27: What is your strategy for cloud deployment of capture? (N=223, excl. 70 Don't Knows)

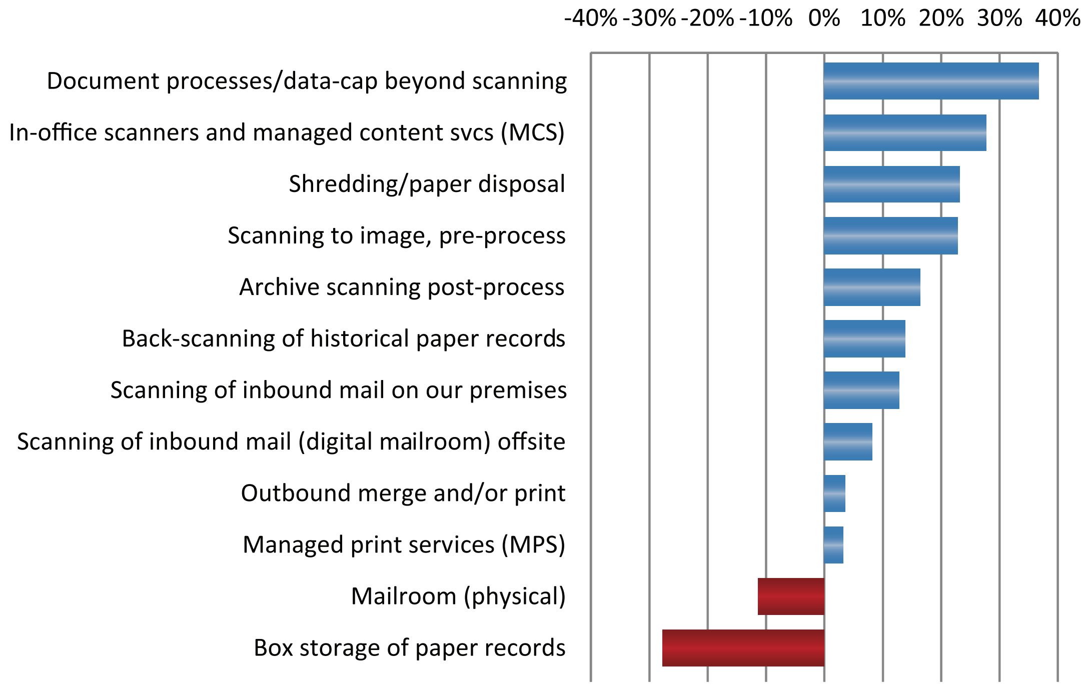


Outsourcing

The document process outsourcing market (DPO) continues to grow, despite the fact that many big back-scanning projects in engineering and healthcare are now complete. There is a general move for more organizations to spend more on added value processes such as data capture, and based on the success of managed print services (MPS) (now with flat demand) comes managed content services (MCS). This involves provision, maintenance and monitoring of scanners and capture engines across the corporate office estate.

In terms of organizations intending to spend more in the next 12 months, archive scanning and back-scanning still have growth. Box storage, which is used by 81% of organizations is in decline, although there are now mixed services of scan-on-retrieval and homogeneous offsite archiving of paper and electronic. Paper disposal and shredding is in use by 91% and increasing.

Figure 28: What use do you make of outsourced document services and what are your plans? (N=281 net organizations using more)

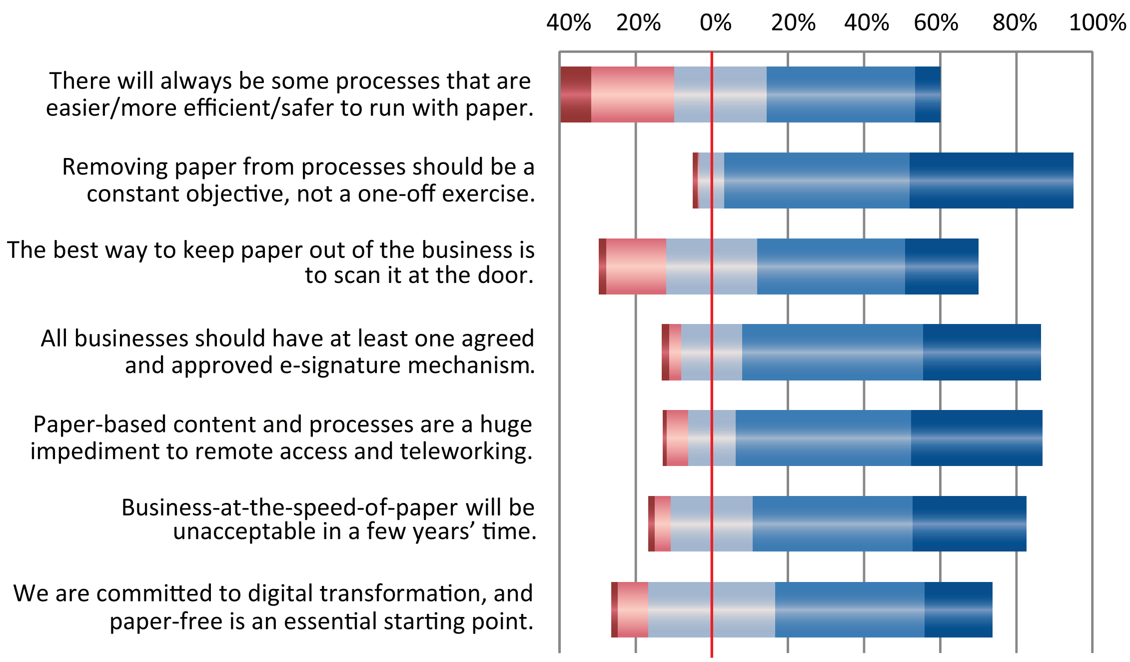


Opinions and Spend

Our "opinions" question is intended to take the pulse of active practitioners, and those who are aware of the possibilities but may have more pragmatic issues to solve.

- 37% agree that there will always be some processes that are easier/more efficient/safer to run with paper. 30% disagree.
- 92% agree that removing paper from processes should be a constant objective not a one-off.
- 79% feel that all businesses should have at least one agreed and approved e-signature mechanism.
- 80% agree that paper content and processes are a huge impediment to remote access and telework.
- 72% confirm that business at the speed of paper will be unacceptable in a few years' time.
- 57% are committed to digital transformation, with paper-free as the starting point for digital transformation.

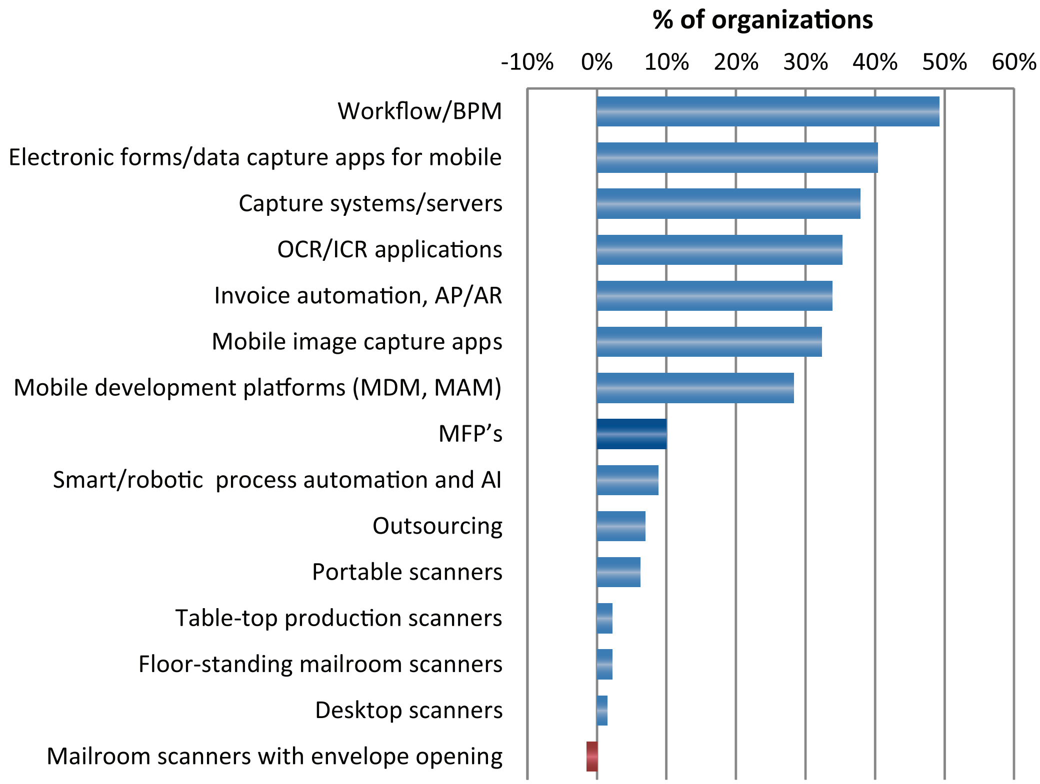
Figure 29: How do you feel about the following statements? (N=179)



Spend

The indications are for strong growth in the number of organizations investing in workflow/BPM, and mobile data capture using e-forms. General Capture, OCR and AP are still seeing increasing activity, then mobile image and MDM. In the 2014 survey, MFPs and scanners showed some decline, but here there is some return to growth in MFPs and demand for other scanners is healthy, but mostly flat.

Figure 30: How do you think your organization's spending on the following products and applications in the next 12 months will compare with what was actually spent in the last 12 months? (N=174, net of spend more–spend less.



Growth indications are strong for workflow/BPM, data capture and OCR, particularly for mobile. AP/AR is still growing, and there is some increase in activity for MFPs, while other scanners are mostly flat.

Conclusion and Recommendations

After so many years where organizations converting their processes to paper-free have been considered early adopters, we seem to finally be seeing mainstream adoption. The message that paper-free is best practice seems to have reached the attention of business advisors, regulators and even governments. Senior management in most organizations can see the potential for business improvement, albeit that lack of endorsement from the top is given as the biggest reason for lack of progress.

Those organizations that have tasted the benefits are moving steadily ahead, and most are reporting ROIs of 12 months or less. There is a tendency to stall after the first one or two projects, perhaps indicating that direct cost-saving is the initial driver for projects such as AP, but improved accessibility, shorter process cycle times and better compliance, and are in strong evidence as soft benefits. Organizations adopting a digital mailroom approach are seeing greatly improved customer response, and are in a much better position to achieve a homogeneous multi-channel inbound across all content types, electronic or paper. The lack of an e-signing solution is hampering many otherwise100% paper-free projects, sometimes from a mis-perceived legal understanding.

Mobile capture is opening up possibilities for innovative services and step-changes in competitive capability, although it is still early days, with most organizations still in the evaluation phase. Cloud seems to be less of an emotive issue on security grounds, and capture-to-cloud is simply seen as one alternative for a distributed capture infrastructure.

We have identified that half of organizations currently have no capability to set up workflows or BPM, paper-free or otherwise, and this seems to be reflected in positive spending plans for the next 12 months. The number of organizations planning increased spend on capture systems and in particular OCR recognition also looks to be growing, and there is a strong interest in all aspects of mobile, particularly e-forms and data capture.

Recommendations

- Look at how paper enters your business, where it slows things down, where it clogs up the workspace, and where it restricts information access and process flexibility.
- Highlight the role that paper-free processes can play in speeding up customer response, improving customer experience, and saving back-office costs.
- Identify who is in charge of radical process review and seek endorsement for policies on paper-free processes.
- Implement quick wins where electronic copies are being habitually printed as part of the workflow - for reference, for review, for signatures, or for file copies. Consider investing in an e-signature solution.
- If you have no existing paper-free processes, pick one to trial – AP perhaps, or HR – but be careful not to become locked in to a single-point solution (e.g., from your finance system vendor).
- If you are unsure of your expertise, get a team member trained, or if you need some external input, consult a document process outsourcer and tap into their experience in your industry.
- Enable workflow within your ECM/SharePoint system, or use an add-on BPM platform.
- Audit any existing processes that utilize scanning and electronic workflows. Ensure they are taking full advantage of OCR, data capture and integration with core enterprise systems.
- Pay particular attention to processes that scan-to-archive post process with a view to changing to an up-front scan-to-process approach.

- Rationalize your capture systems with a view to servicing multiple processes, with distributed access across multiple-sites and branches, or through the cloud.
- Position that system “right at the door” as a digital mailroom, defending offices from paper, and ensuring the quickest possible conversion to digital.
- Extend the paper-free concept further to the point of origination, whether that is a branch office, a shop, or the mobile devices of your employees and customers.
- Take the widest view of how mobile capture can help – e-forms, photos, image recognition, records capture, signatures, etc.
- Above all, imagine how you will compete if in a few year’s time if you are still running your business at the speed of paper.

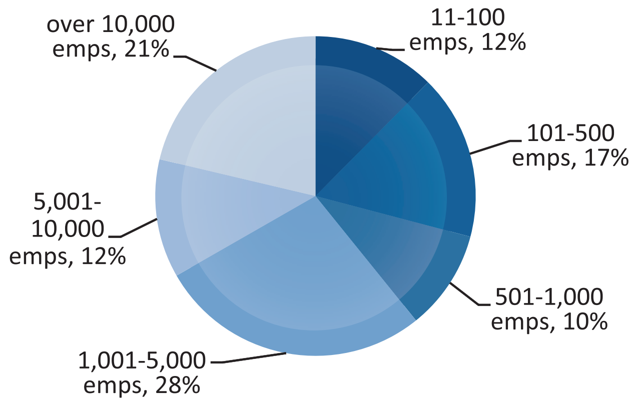
Appendix 1: Survey Demographics

Survey Background

The survey was taken by 430 individual members of the AIIM community between August 14, 2015, and September 02, 2015 using a Web-based tool. Invitations to take the survey were sent via email to a selection of the 80,000 AIIM community members.

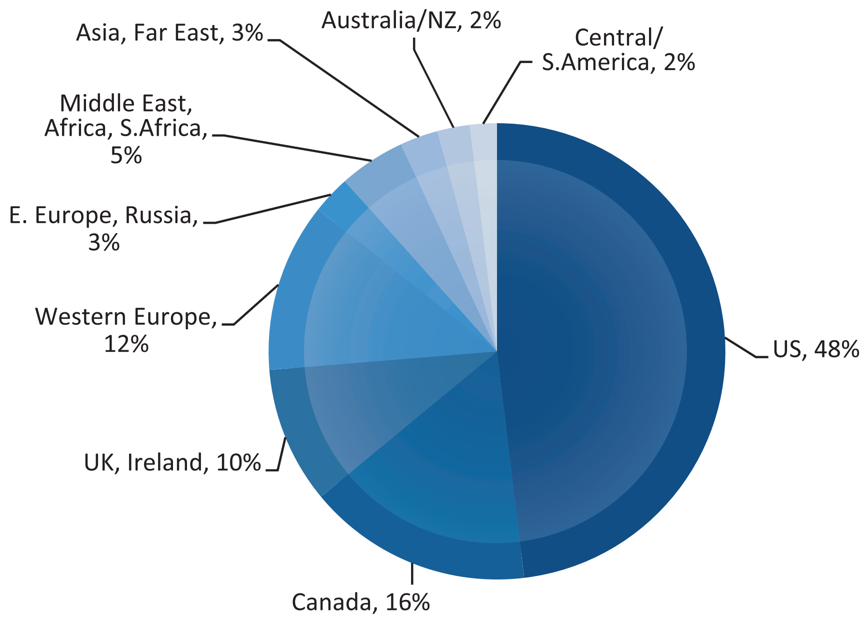
Organizational Size

Survey respondents represent organizations of all sizes. Larger organizations over 5,000 employees represent 28%, with mid-sized organizations of 500 to 5,000 employees at 40%. Small-to-mid sized organizations with 10 to 500 employees constitute 33%. Respondents from organizations with less than 10 employees have been eliminated from the results, as have employees of ECM product or service providers, taking the total to 365 respondents.



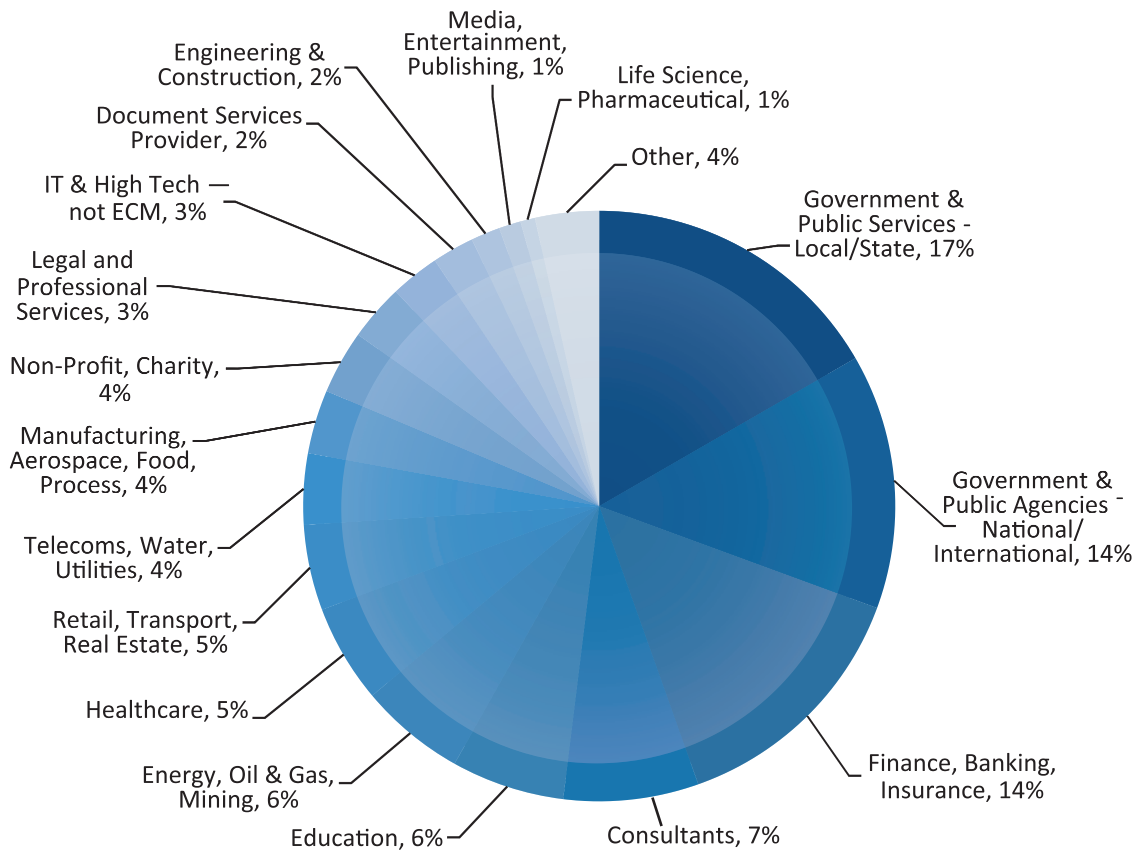
Geography

72% of the participants are based in North America, with 16% from Europe and 13% rest-of-world.



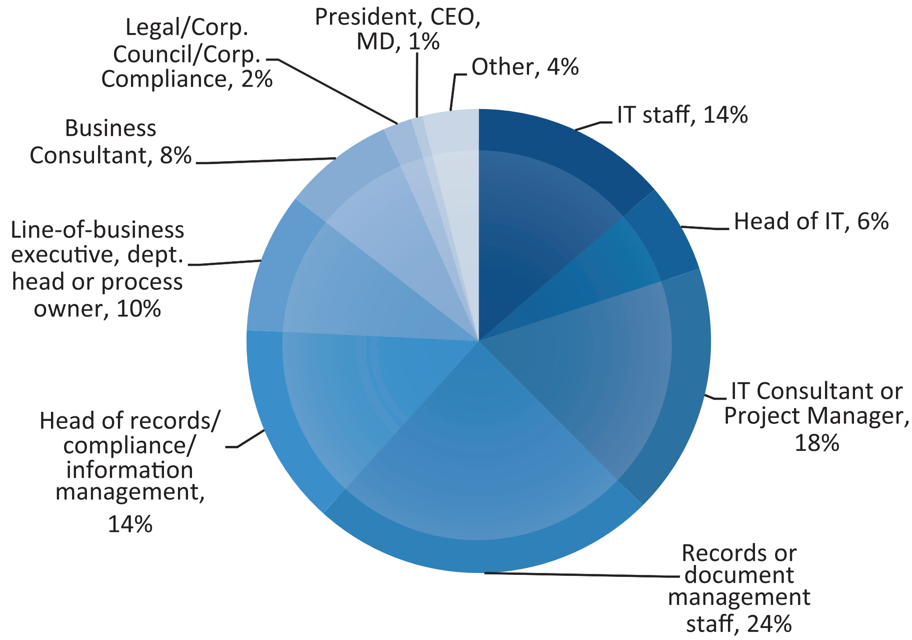
Industry Sector

Local and National Government together make up25%, Finance and Insurance 12%, Energy 10% and Education 8%. To avoid bias, suppliers of ECM products services have been excluded.



Job Roles

25% of respondents are from IT, 48% have a records management. knowledge management or information management role, and 26% are line-of-business managers or consultants.



Appendix 2: Selective Comments

Do you have any general comments to make about your capture systems and mobile capture deployments? (Selective)

- We are trying to get people to save documents in the format that they are received. If they come in electronically, that's how they should be retained.
- Our goal is to eliminate paper from entering the process.
- We are behind and struggling with executive support - we have managed a number of successful, small-scale initiatives but are stuck trying to expand to the entire enterprise in a meaningful way.
- Capture of invoice processing is crucial to gain efficiencies in business processes. Change management has been huge for the Finance team who are very scared of letting their paper processes go - they fear loss of jobs.
- Standards need to be deployed and adhered to consistently across the enterprise.
- Efforts come from business units and are not typically driven by senior management.
- Senior management was on board from the get-go - this was not an issue.
- We are in the process of building a business case and it is difficult to convince all stakeholders as they all come to the table with different views.
- Did all the legal research, and looking into a compliant Digital Signature Solution now.
- Signatures is not an issue at this stage. However we do have a workflow that tracks verification in a process which used to require a signature.
- Make the business case, start small, think big.
- Our top management has recognized the need since the 90's and we are slowly putting process in place to support a paper-free environment to the highest extend possible.
- Management drove process efficiency initiatives: paper-free was a happy by-product.
- We had some issues where paperwork was getting "lost" sitting on coworkers' desks, and going with a paperless workflow allowed all staff members involved in the process to see the form as soon as it was received, and paperwork was no longer lost.
- Most staff see the need for access and collaboration.
- We used good case studies and advocates/champions in success stories elsewhere in business.
- First educate tech-savvy staff, then let them help their colleagues.
- Keep paper for "reassurance" for awhile.

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- Case Study: MN Dept of Revenue streamlines state tax & revenue ops w/ capture solution
- Managing Inbound Communications to Optimize Customer Experience
- Capture to Cloud: automating AP for large and small enterprises
- Multi-Customer Process Software for DPOs – improving time-to-profit

PERSPECTIVES

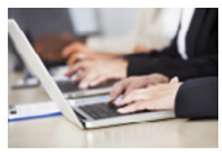
Community insights, opinions, and discussions

- Kickoff Meeting (Oct 22 2015, 11:00 AM - 12:00 PM (ET))
- EuGH kippt Safe Harbor - wohin nun mit den Daten?
- Q3 Summary from a SharePoint of View
- ECM & EIM Basics | S21 | 3. – 4.11.2015 | Hamburg

WEBINARS

On-demand webcasts led by industry experts

- Drive Paper Out of Your Processes: 4 Tips to Digitize and Automate Document-Intensive Workflows
- How We Captured 10.3 Million Pages of Documents – and Lived to Tell the Tale
- Everything you Always Wanted to Know About Capture
- Content in the Field: capture it, process it, and get work done!
- Who's Afraid of Mobile Capture?
- Revealed: The 5-Step Formula for Reducing Document Capture Costs
- The Future of ECM: new models for success



TUTORIALS

How-to videos developed by industry experts

- How to Automate Metadata Collection and Classification
- How to Use Metadata and a Taxonomy to Improve Access to Information
- How to Use Digital and Electronic Signatures
- How To Prepare For 35mm & 16mm Digital To Film Conversions
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- How to Start Planning Your Capture 2.0 Strategy
- How to Tame Information Chaos with Artificial Intelligence
- How to Capture Twitter Content as Records
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