Built with Purpose

As CROs begin to lead the shift from paper to electronic trial master file applications, the benefits are starting to be recognised. As this enables faster study start-ups and cost savings, perhaps it is time to go digital

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Innovation has long been the trademark of CROs and a key driver in the rapid growth and consistently strong financial performance of the sector, so it comes as no surprise that they are leading the switch from paper-driven processes to more efficient electronic trial master file applications (eTMFs) (1). The results of a new survey, however, seem to show that CROs are not only setting the pace for going paperless, but also driving the migration from passive to active trial master file (TMF) management – and reaping the rewards.

The '*Veeva 2016 paperless TMF survey: CRO report*' is now in its third year, collating feedback from 217 TMF managers worldwide (2). This year's results reveal a seismic shift throughout the industry toward eTMFs, with less than a quarter of CROs (22%) still using paper-based methods in clinical operations. More than half now archive documents electronically, and 46% collaborate in the same way. Furthermore, 31% use eTMF applications to share documents with sponsors – up from 24% in 2014.

But the move towards active eTMFs is the strongest indicator that something more significant than paperless documentation is occurring. Nearly one third of CROs now use purpose-built eTMF applications that enable active TMF management – an increase from 21% in 2014. The use of passive eTMFs has lessened significantly, with cloud file shares down by 12% and local file systems decreased by 10%. So what is an active eTMF, and why is it such a compelling proposition for CROs?

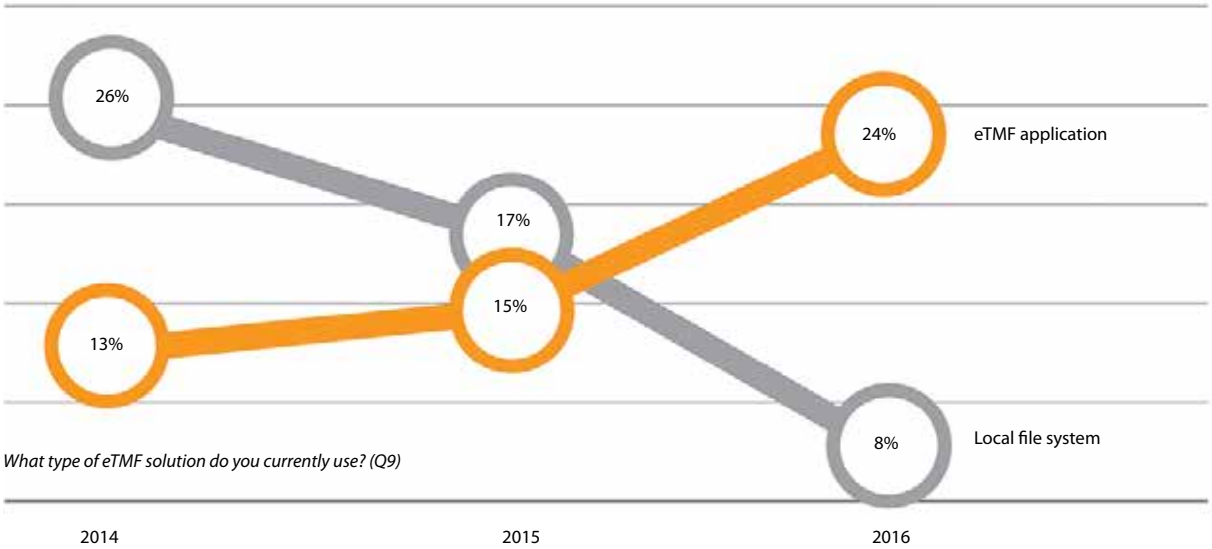
Rise of Active eTMFs

To understand the growing demand for active eTMFs, it is worth exploring why their processes are so important. There are two key factors: regulatory agencies require higher levels of access to these procedures, while life sciences companies are looking for ways to make them more efficient.

These challenges have helped to build the business case for eTMF processes in general. Results from the survey prove that CROs using these electronic applications achieve significant improvements across major inspection-finding categories – such as fewer duplicate (61%), misfiled (53%) and incomplete documents (51%).

The outcome of the survey also reveals that the ability of organisations to respond to regulatory requirements is improving but, as an industry, there is still a lot of work to do. Many CROs report that integrating their eTMFs with their clinical trial management systems (41%) and electronic data capture systems (37%) is necessary to achieve a paperless state, while 53% cite e-signatures as a capability that they are missing so they cannot go paperless.

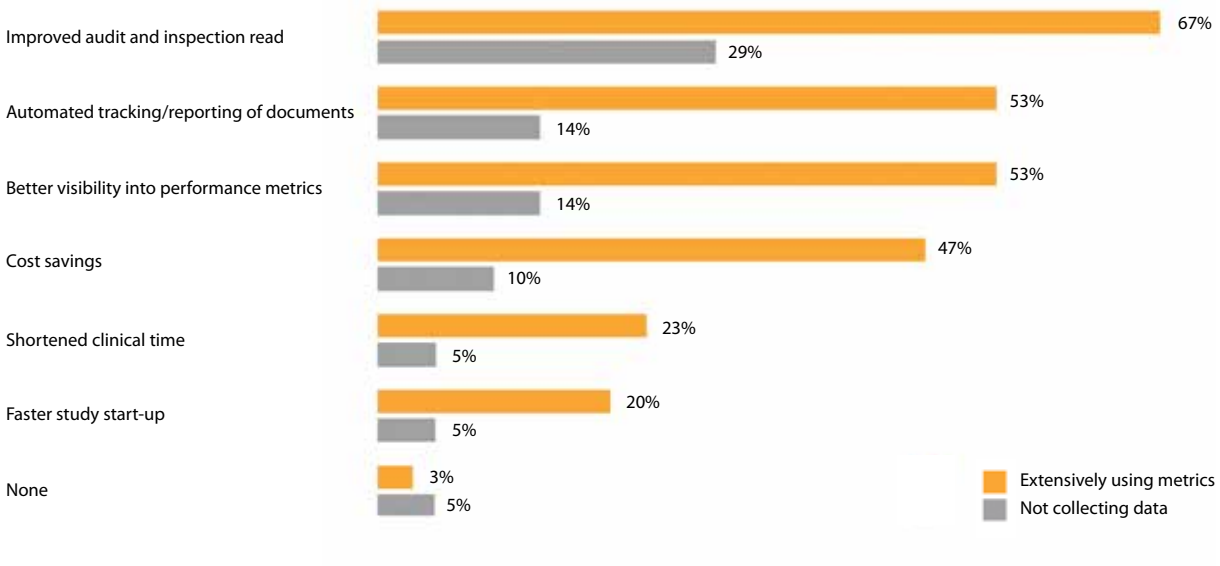
% using a local file system or eTMF application
Base: sponsor respondents, 2016 N = 137, 2015 N = 124, 2014 N = 135



What type of eTMF solution do you currently use? (Q9)

Figure 1: eTMF system used, 2014-2016

Those reporting no use of metrics compared to those reporting extensive use of metrics
Base: respondents using an eTMF, N = 155



What benefits were achieved with your organisation's implementation of the eTMF solution specified in Q9? Select all that apply. (Q10)
What type of eTMF solution do you currently use? (Q9)
To what extent is your organisation leveraging TMF operational data (eg time from initial review to approval) to approve trial processes? (Q13)

Figure 2: eTMF benefits achieved by level of metrics usage

It is clear that there are still varying levels of maturity in eTMF processes among CROs. While the old paper-based practices are being phased out and replaced with digital versions, many companies are still using passive eTMFs, whereby TMF methods simplify traditional manual ones. Local file systems and cloud file shares are utilised as static repositories for simple storage and archive. General content management systems used by 37% of CROs – a figure that has remained relatively stable since 2014 – offer more mature management, with capabilities such as search, versioning and some workflow. However, they lack accessibility and the ability for real time process integration. Likewise, cloud file shares can provide universal stakeholder access, although they lack system integration, traceability and clinical workflows – which are all necessary for an active TMF management model.

This leads us to active eTMFs. With the growing need for visibility into clinical trial status and the ability to track metrics throughout the study process, integrating eTMF procedures across functional areas, external partners and systems is key. "A passive TMF model promotes inefficiency that can trickle down from core TMF management processes to broader clinical-trial processes," explained Jess Vicari, Director of Regulatory Start-Up and Document Management at Advanced Clinical. Active eTMF management, on the other hand, integrates TMF methods into the clinical trial process workflow, ensuring that study findings are recorded as they happen, which, in turn, means that status reporting becomes more accurate and effortless.

Ultimately, as the survey demonstrates, active eTMFs are driving significant improvements in the ability to meet regulatory requirements. The majority of CROs cite considerable enhancements in central and remote auditing, as well as automated tracking and reporting of documents (56%) – both of which are crucial in providing timely and precise status updates to sponsors. Three quarters of CROs report that they currently provide auditors and inspectors with direct access via eTMFs to trial master documents, or will do so within a year.

The Power of Data

Besides the significant inspection-readiness advantages with active eTMF management, a key driver of eTMF

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adoption among the majority of CROs (57%) is the improved access to performance metrics, with 44% reporting better visibility.

Companies are not only capturing metrics; they are also making large strides in putting these data to use, with one quarter now "extensively" utilising it to improve trial processes (up from 16% in 2015), and another 46% using it to enhance clinical workflows "in some cases" (a rise from 40% in 2015).

Exom Group is an example of a CRO leveraging the power of data provided by an active eTMF to smooth the start-up process. Luigi Visani, the Chief Executive Officer, explained: "Firstly, the eTMF enables quicker and more accurate collection of documents during the pre-study phase. These can be filed in real time and shared remotely with the relevant parties as required. Additionally, the presence of dashboard reports gives the study manager an 'at-a-glance' view of documentation completeness per site."

Faster Trials

For the past three years, CROs have been leading the industry-wide drive toward active TMF management and unified clinical operations. By adopting purpose-built eTMF applications and automated workflows, they have achieved significant benefits, both in the quality and accuracy of clinical study status data and in process efficiencies. "Over the past several years CROs have played a pivotal role in moving the life sciences industry toward more efficient clinical trial processes," said Jill Johnston, Vice President of Veeva Vault Clinical. "As clinical trials become increasingly outsourced, we'll see that trend continue, especially as demand grows for unifying systems, processes, and stakeholders across clinical operations."

Inspection readiness is, of course, a key driver – and for good reason. Accelerating this process leads to faster clinical trials: one of the biggest goals for all life sciences companies today. Visani agreed: "Using the eTMF means that we have full and secure control of all steps during the approval process, across multiple recipients, saving considerable time overall. Even when delays occur due to local bureaucratic complications, the availability of an online document management system can help to more efficiently manage poorly responding clinical sites. Our experience shows that using the eTMF has significantly simplified and accelerated every part of the document management process."

References

1. Global CRO market expected to rocket to $59B by 2020, CRO industry for early-stage development services and last-stage developmentservices:Globalmarketperspective,comprehensive analysis and forecast, 2014-2020, Zion Research
2. Visit:go.veeva.com/eu/2016_paperless_tmf_survey_cro_report
3. Visit: go.veeva.com/2016tmfsurveyeu

Benefits of active eTMFs

An active eTMF process helps businesses to meet regulatory requirements and efficiency objectives, as the survey indicates (3). The four biggest benefits include:

- Continual inspection readiness and accessibility: regulators such as the EMA and the Medicines and Healthcare products Regulatory Agency (MHRA) expect, at a minimum, that an organisation's TMF accurately reconstructs how a clinical trial was conducted to demonstrate effective sponsor oversight, support decisions made and comply with Good Clinical Practice guidelines. The MHRA has also increased the minimum expectation to have the TMF readily available at all times, and it must be accessible and complete
- Real time documentation: purpose-built eTMFs enable a single source of truth across all parties to ensure all documents are up to date and stored in a single location for easier collaboration
- Rich insight to improve operational efficiency: purpose-built systems capture process- and quality-specific data as the trial is being conducted. Real time reporting and dashboards leverage this information to provide organisations with an in-process view of the trial

About the author



Rik van Mol is Vice President of R&D Strategy at Veeva Systems and responsible for the Vault R&D suite of applications in Europe. He has been involved in business/IT consulting and regulated content management in the life sciences sector for nearly 20 years. Rik's experience has been built on assisting clients through complex transformational programmes across the life sciences value chain, including clinical, regulatory, manufacturing and supply chain areas for some of the world's largest companies.

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