



eClinical Trends Among Small Biopharma Organizations and CROs

**Understanding the uptake of
clinical trial technologies**

medrio |  **BIOPHARMA DIVE**

Custom content for Medrio by studioID



About This Report

As clinical trial technologies become more innovative and expansive across life sciences, important trends have taken shape.

In the past, larger biopharma organizations embraced eClinical technologies more than smaller organizations. But as these tools become more proven, **more decision makers at small-size biopharma organizations (biotech/pharma) and CROs are paying attention to how they might help throughout the study lifecycle.**

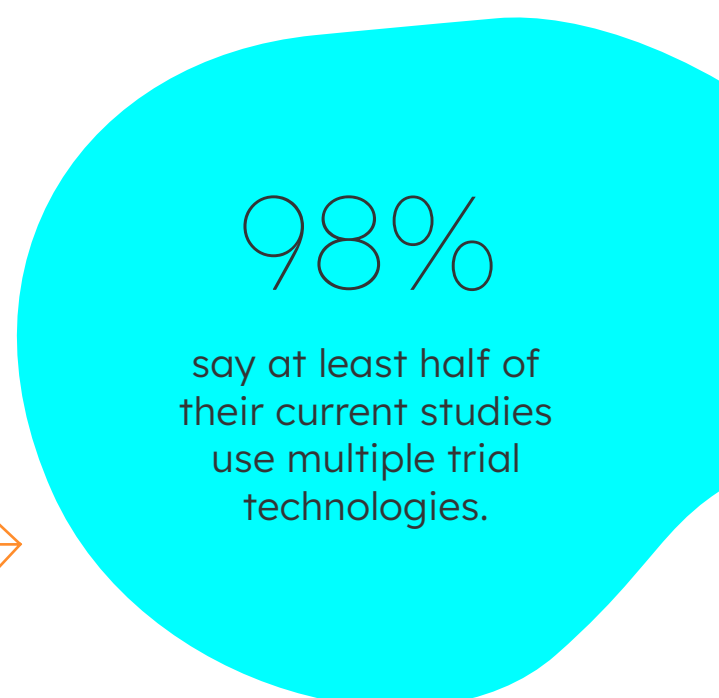
Electronic data capture (EDC), risk-based quality management (RBQM), and eConsent are the most widely used.

Even though leaders seem happy with their tech stacks, certain doubts chip away at their confidence. Respondents were **least confident that solutions could support emerging complexities and trends** like synthetic control arms and decentralized trials. Experts say this interesting juxtaposition needs more attention.

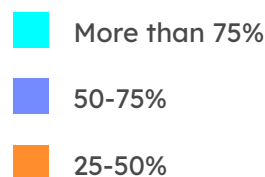
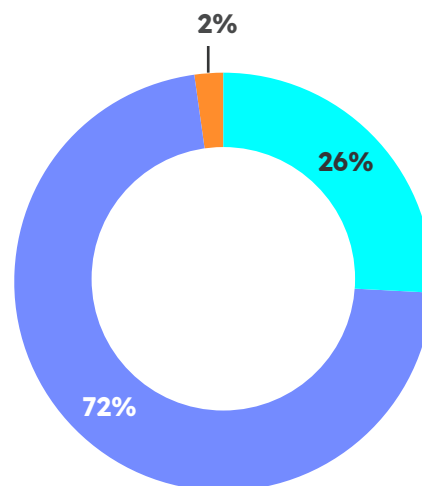
Those insights surfaced in a recent Medrio and Industry Dive survey.

More than **150 respondents** shared information on uptake trends in clinical trial tech including selection criteria, satisfaction, and utilization. The results show important insights into the influential and expanding role of clinical trial technologies as studies get more complex.

This report details findings from the 2024 survey and shares perspectives from Medrio experts as they explore what's behind these trends.



What percentage of your organization's existing clinical trials involve two or more clinical trial technologies?





In This Guide

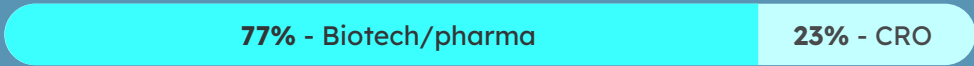
- Finding 1: Current Clinical Trial Technology Usage**..... 4
 - Technology variety 4
 - Clinical trial stages 5
 - Perceived advantages 6
- Finding 2: Adoption, Onboarding, and Vendor Support**..... 8
 - Implementation challenges 8
- Finding 3: Future Technology Uptake** 10
 - Optimism for the future 10
 - Cracks in confidence 11
- Manage Complexity Without Compromising Ease-of-Use** 12



About the research

The findings of this research are based on an online survey conducted by Industry Dive from March to April 2024. A total of 150 respondents who met the following qualifications participated in the research:

- Their companies conduct human-subject clinical trials.
- Their companies use technology to support the execution of clinical trials.
- Their companies are biotech, pharma, or CRO organizations.



- Their companies employ no more than 1,500 people.

The sample was drawn from Industry Dive databases.



FINDING 1

Clinical trial technologies are established throughout the study life cycle. While perceived benefits are varied, data quality is a priority.

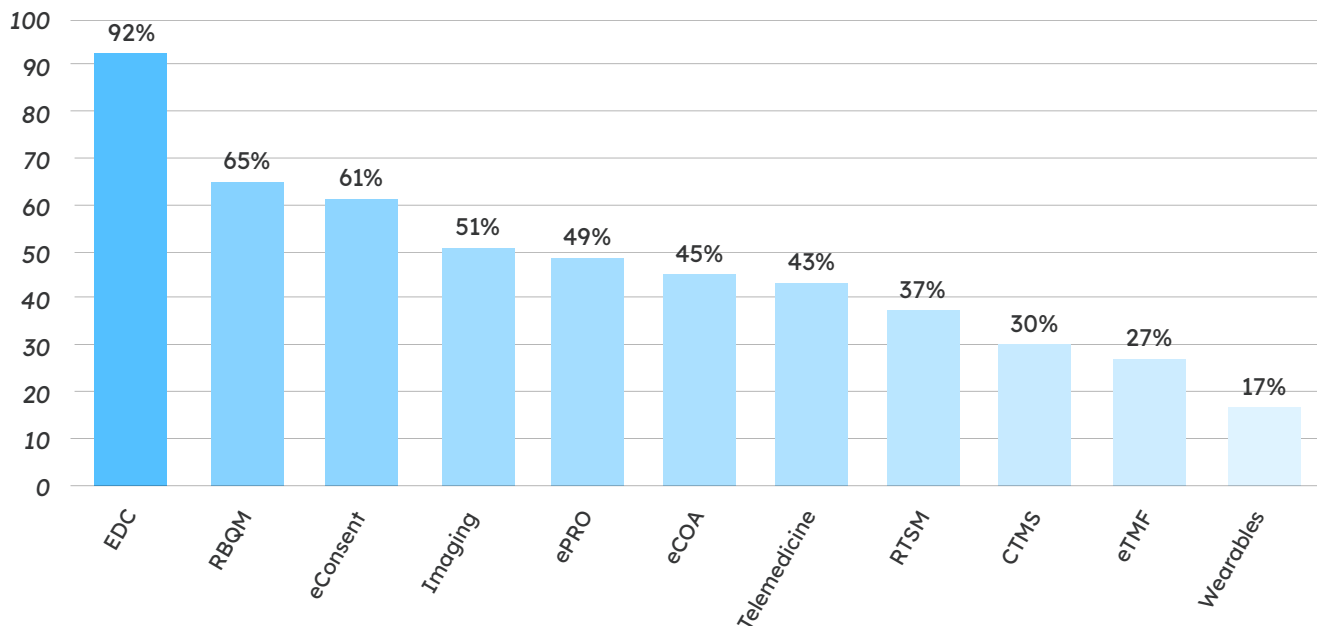


Technology variety

Nearly all respondents say they use multiple clinical trial technologies. A wide variety of technology types emerged when respondents were asked to check all the tools they use or have used in the past, led by EDC (92%), RBQM (65%), and eConsent (61%).

“We’ve come to the realization in this industry that **technology can be a benefit and can enhance what manual efforts** have done to move processes along,” said Melissa Newara, VP of eClinical Solutions and Consulting at Medrio. “And we’re really starting to see those trends play out in the diverse uptake of these tools.”

Which of the following clinical trial technologies have you used previously or use currently? (Please select all that apply.)





Clinical trial stages

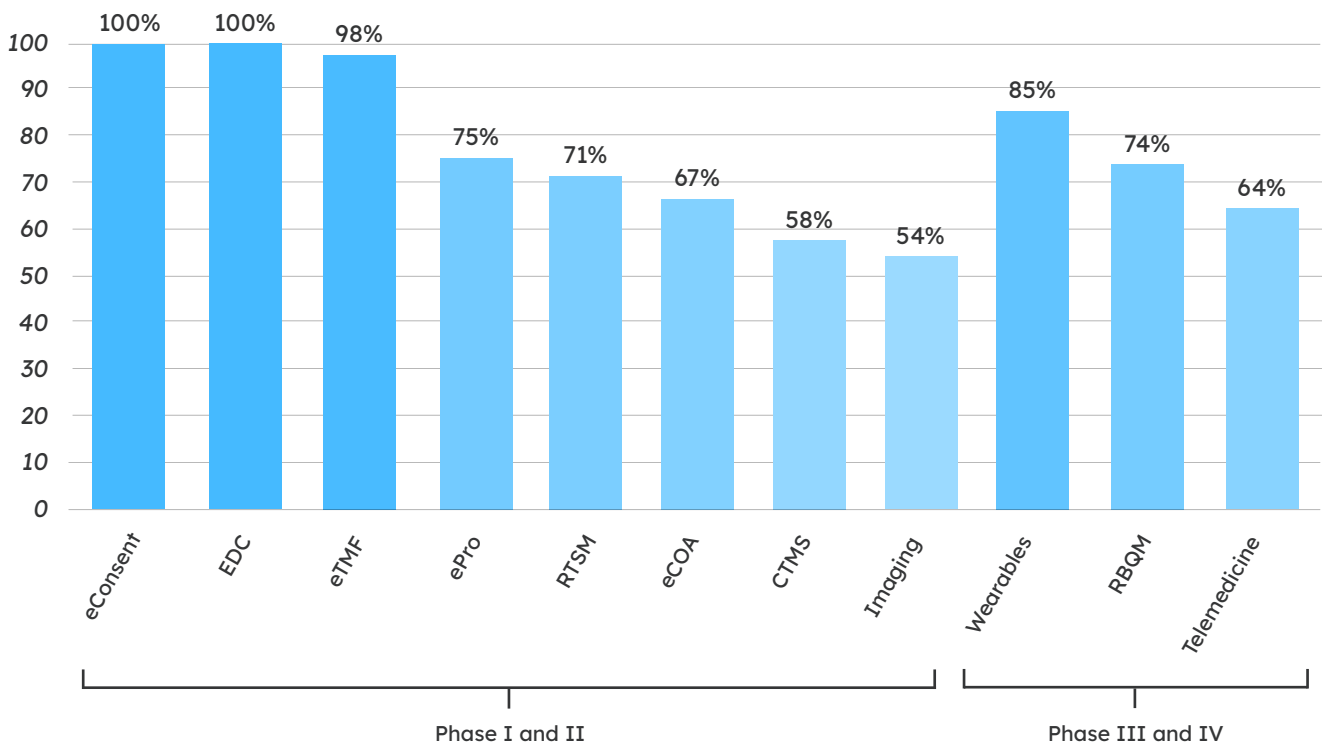
Medrio’s survey also showed a divide in the types of tech introduced in early versus late phases.

Solutions that support study operations, data management, or other foundational activities tend to get introduced early on. Among those using eConsent or EDC, for example, 100% of respondents said they introduced those solutions in Phase I and II.

“It is surprising that we see eConsent being introduced so early, as we usually see these solutions implemented in later stages,” Melissa said. “But it is certainly promising to see that the value of this tool is gaining more widespread attention.”

Solutions that tend to involve large populations of participants—such as wearables, RBQM, and telemedicine—were more likely to get introduced in Phase III and IV.

At what point in the clinical trial life cycle does your organization typically introduce the following clinical trial technologies? (Among those already using these technologies.)





Perceived advantages

Respondents overwhelmingly pointed to **increased data quality as a top benefit** of clinical trial technologies. Roughly **7 in 10 selected it** in their top four perceived advantages. Efficiency-related factors of **reduced cycle time and reduced labor costs followed behind** at a much lesser but still sizable extent of 34% and 32%, respectively.

The **twin priorities of data quality and efficiency** were also evident when respondents revealed what they consider when evaluating clinical trial technologies.

Among their top three selection factors, **77% and 53% of respondents selected data quality and efficiency**, respectively. Respondents universally agreed that **CROs typically select those technologies**, not biopharma organizations.

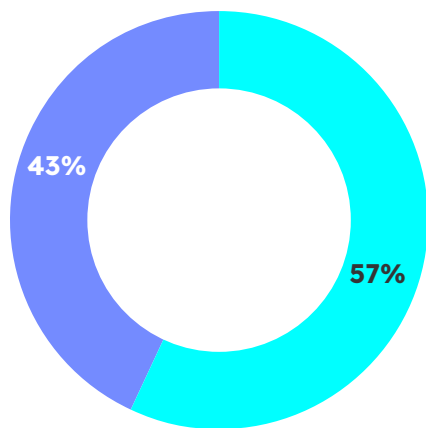
The unanimous importance of data quality aside, it's not surprising that this population size—small biopharmas and CROs—would rate *efficiency* so highly.

Small biopharmas are often concerned with limitations on budgets, staff, or other resources, suggests Rod McGlashing, Subject Matter Expert of Data Science at Medrio. CROs are too, for that matter. They expressed **more concern about efficiency and reporting** than biopharmas, at a delta of roughly 13 percentage points.

“CROs are looking at metrics, and they want to hold their personnel accountable to hit those metrics: What’s our query rate? How many queries are we resolving?” Rod said. “Things like that are very important to the CRO **because they’re committed to serving their clients.**”

To what extent do you agree or disagree with this statement?

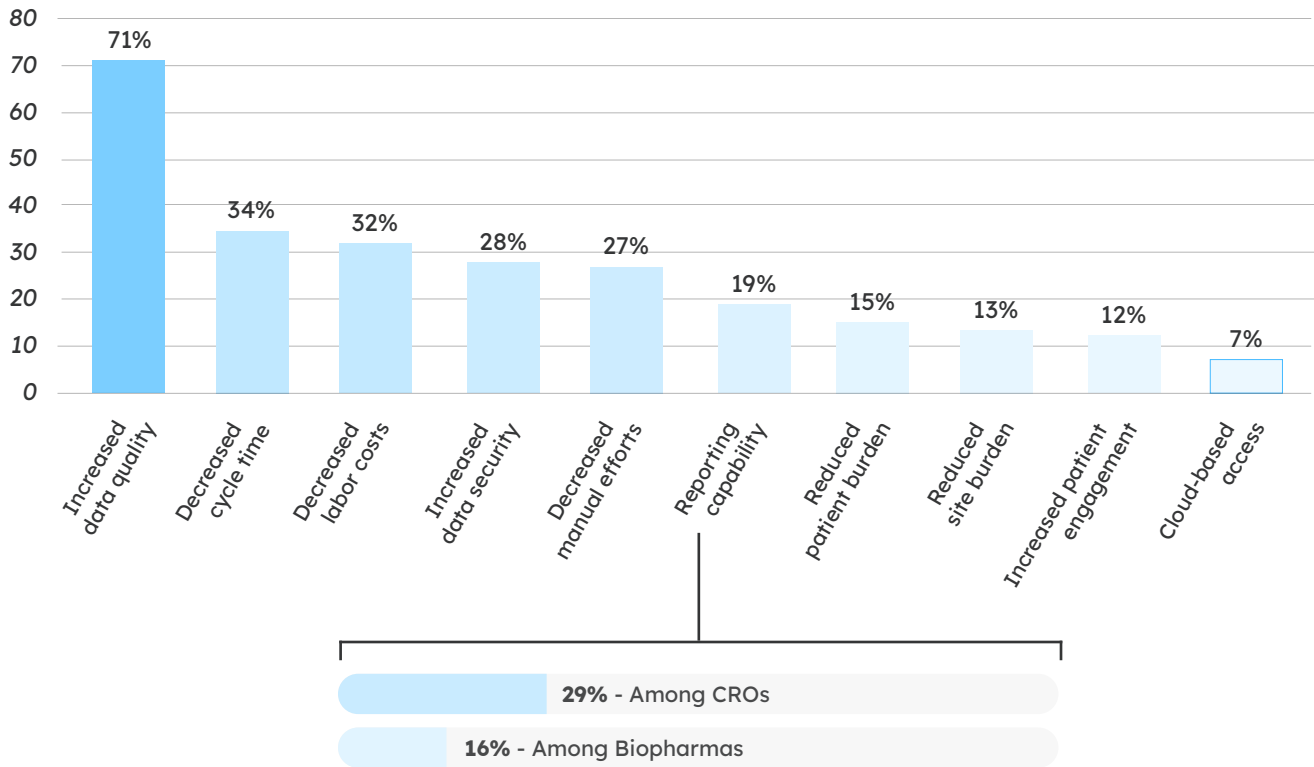
“In my experience, the CRO is typically responsible for selecting clinical trial technologies, not the clinical trial sponsor.”



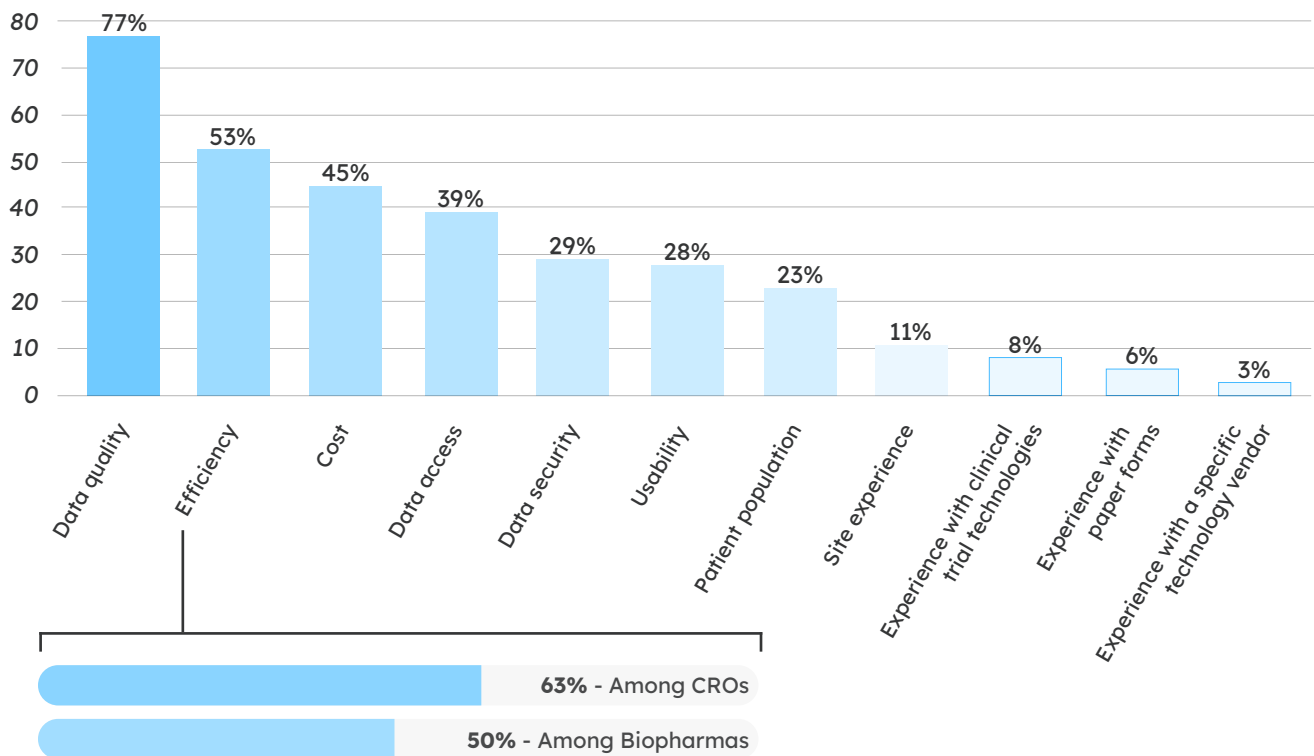
- Agree strongly
- Agree somewhat



What do you consider to be the top advantages of clinical trial technologies? (Please select up to three answers.)



What do you believe are the top factors your organization's decision-makers consider when selecting a clinical trial technology? (Please select up to four answers.)





FINDING 2

When adopting clinical trial technologies, steps like training and onboarding can be a challenge. Fortunately, the support of vendors is well received.

Implementation challenges

More than 1 in 2 respondents (55%) reported **training and/or onboarding as a top challenge** of technology adoption. Concerns of **budget, change management, and setup support followed.**

Here's the question we posed to our experts: **Does the need for training and onboarding stem from the operational realities** of these groups—layoffs, turnovers, limited staff? **Or is it a matter of the technology itself** being too confounding and complex?

“It’s probably 80/20,” Rod said. “Certainly in our industry, there are some platforms that are remarkably complex and hard to learn. But we’re also operating in an environment where you might, as an organization, be looking at a high turnover rate year over year that requires staff to be retrained, driving this trend of onboarding being so challenging.”

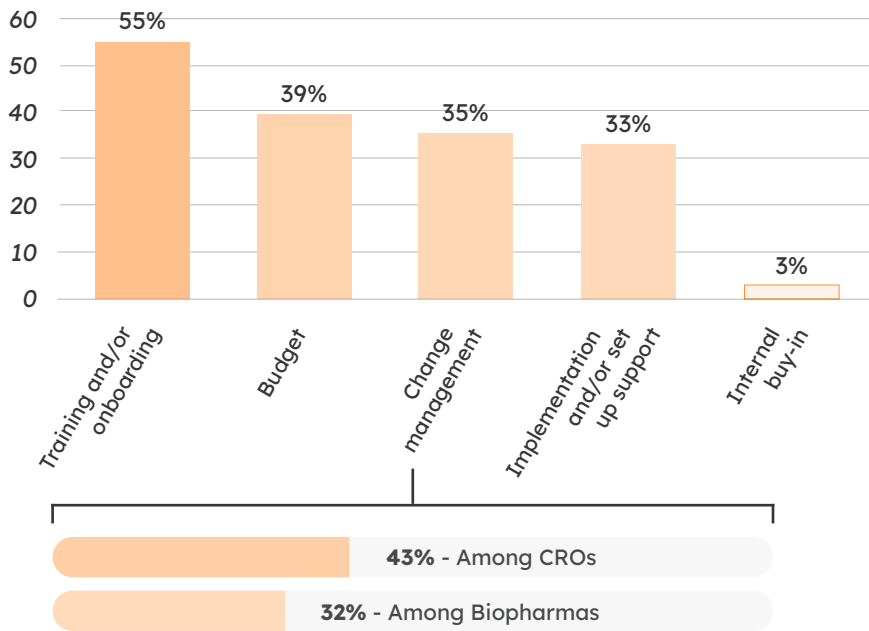
While CROs and biopharmas reported similar challenges, **change management skewed slightly higher for CROs.** Of CRO respondents, 42.9% reported change management as a top-two challenge, compared to 32.2% of biopharmas.

Challenges and barriers notwithstanding, respondents still report **widespread satisfaction with the implementation help** they get from technology vendors. The vast majority, **9 out of 10,** said they’re at least somewhat satisfied with vendor support.

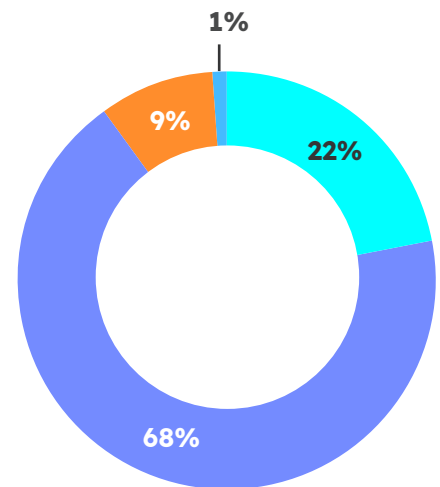




What are the biggest challenges with technology adoption at your organization? (Please select up to two answers.)



How satisfied are you with your current clinical trial technology vendor(s) when it comes to implementation support?



- Very satisfied
- Somewhat satisfied
- Somewhat dissatisfied
- Very dissatisfied



FINDING 3

Users expect trial technologies will evolve as studies do. But they doubt how well the tools will perform key future tasks.

Optimism for the future

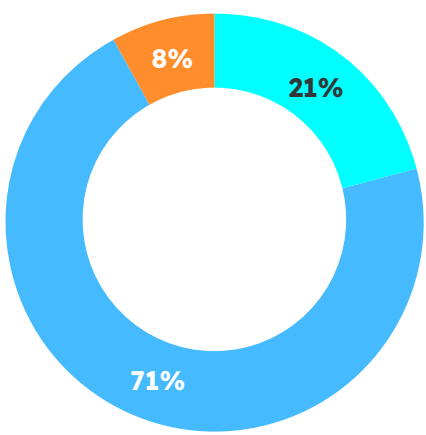
Companies are confident, but not necessarily very confident, that their **existing technologies will keep pace as clinical trials evolve.** “That’s impressive but not surprising,” Rod said. To understand why, recall what happened during COVID-19.

“Historically, our industry is slow to adopt technology, as we probably should, given what’s at risk with patient lives,” he said. “But we saw a change in that during the pandemic, where we had to react quickly and flexibly to adopt new technologies.”

“Since that immediate crisis and need has curtailed, we’re starting to see that slow adoption come back into play.”

Biopharma and CRO stakeholders seem **most excited about improvements in data reliability**—which they reported as a top future tech benefit. This tracks to what respondents reported about data quality, and emphasizes the importance of data for years to come.

How confident are you that your organization’s existing clinical trial technologies will keep pace as clinical trials evolve in the future?



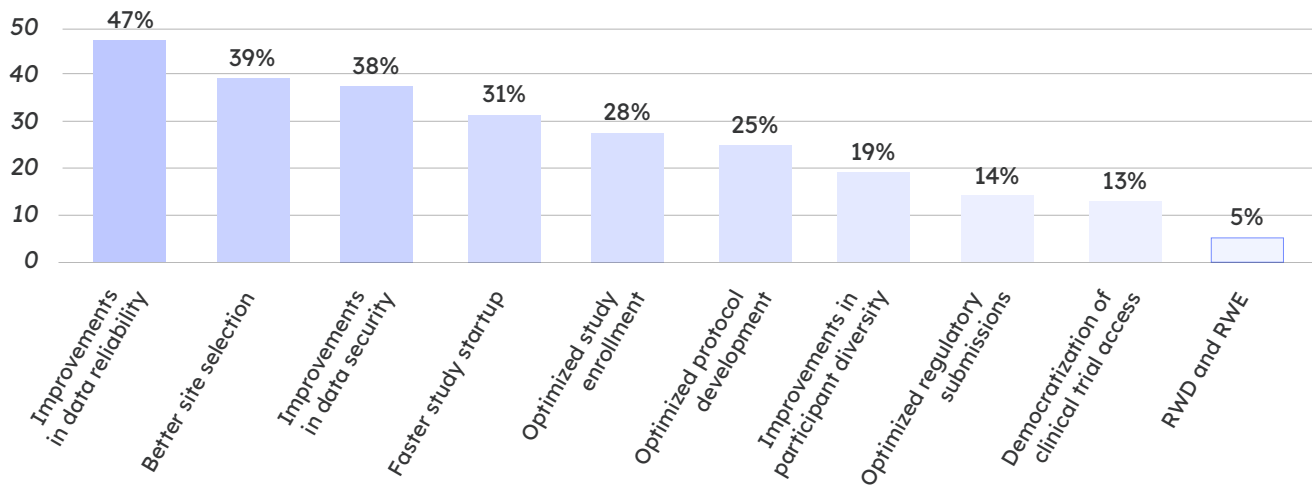
- Very confident
- Somewhat confident
- Somewhat unconfident

“The industry’s proven ability to be nimble and adapt during the pandemic instills lasting confidence in our future.”

ROD MCGLASHING
Subject Matter Expert of Data Science at Medrio



What do you consider to be the most exciting future benefits of clinical trial technologies? (Please select up to three answers.)



Cracks in confidence

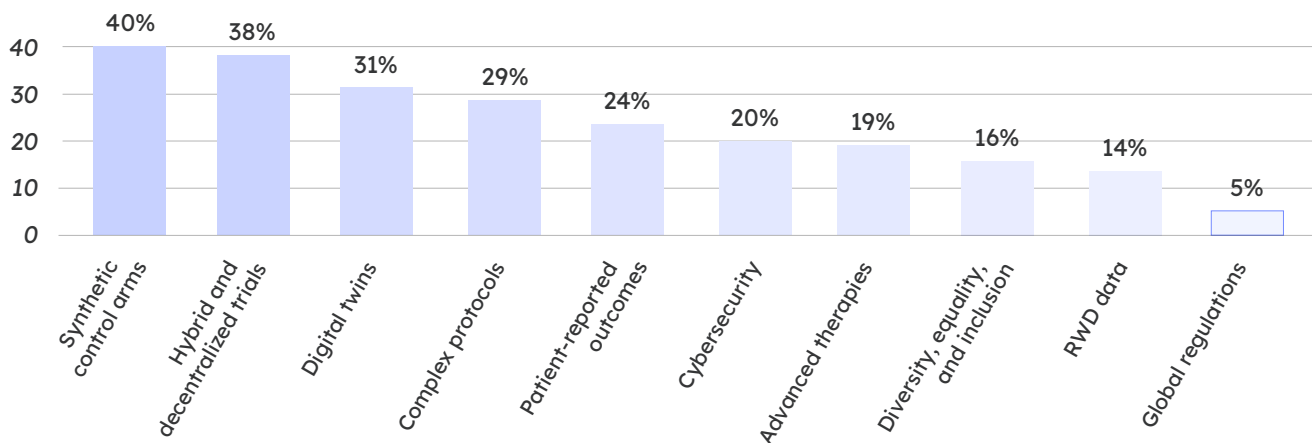
Respondents' optimism in their tech's ability to keep pace is juxtaposed by a few specific areas.

In particular, respondents reported feeling **less sure that their existing tech could keep up with increasingly complex clinical trial types and designs.** This included synthetic control arms and hybrid/decentralized trials (DCTs). The latter was surprising, given the pandemic's extreme DCT wave.

Melissa attributes these perceived gaps to a bigger, broader concern. Biopharma and CRO **leaders may be having doubts about whether they can evolve their strategies to support trial complexities,** not necessarily whether the technology will support them.

"I think a lot of organizations are still working through what things like synthetic controls, digital twins, decentralized clinical trials, and other trial complexities mean for them and their research," she said.

For which industry trends/demands do you believe your existing clinical trial technologies will be least able to support in the future? (Please select up to three answers.)





Manage Complexity Without Compromising Ease-of-Use

By and large, our survey points to progress throughout the research continuum. People have an **expansive, sustaining interest in clinical trial technologies** that improve data quality, efficiency, and beyond.

While respondents are generally confident in their tech readiness for the future, their **optimism is contrasted by doubts about their ability to successfully adapt** to the impending need for more complex clinical trial types.

As regulatory and market forces increasingly necessitate research innovation, biopharma and CRO organizations will likely face continued pressure to keep up. Incorporating **complex trial designs will be essential to stay competitive** and bring new therapies to market.

Technology vendors will need to be particularly responsive to those demands and concerns. Just as importantly, **sponsors and CROs may need to be more scrutinizing** as they map selected platforms and vendors to their current and future needs.

Creating a robust clinical trial technology strategy that aligns with your protocol can be challenging. If you're interested in consulting with experienced Subject Matter Experts, like Rod and Melissa, visit [Medrio.com/Contact-Us/](https://www.medrio.com/Contact-Us/)

medrio

Trusted by sponsors, CROs and sites worldwide, Medrio aims to improve 100 million lives through faster, more efficient, and secure clinical trials. With almost two decades of experience, Medrio delivers proven, scalable solutions, unrivaled customer support, and guidance to the industry's leading innovators, including pharmaceutical, biotech, medical device, diagnostics and more. The company's suite of solutions, including CDMS/EDC, eCOA/ePRO, eConsent and RTSM, enables the capture of quality clinical trial data while optimizing workflows for regulatory readiness. Experience the power of Medrio and realize the full potential of your clinical operations and outcomes. For more information, please visit [medrio.com](https://www.medrio.com).

[Learn more](#)

studio / ID

BY INDUSTRY DIVE

studioID is Industry Dive's global content studio offering brands an ROI rich tool kit: Deep industry expertise, first-party audience insights, an editorial approach to brand storytelling, and targeted distribution capabilities. Our trusted in-house content marketers help brands power insights-fueled content programs that nurture prospects and customers from discovery through to purchase, connecting brand to demand.

[Learn more](#)