



A Sage Growth Partners Survey
Sponsored by Olive

February 2021

The State of Healthcare Automation

Urgent need, growing awareness,
tremendous potential



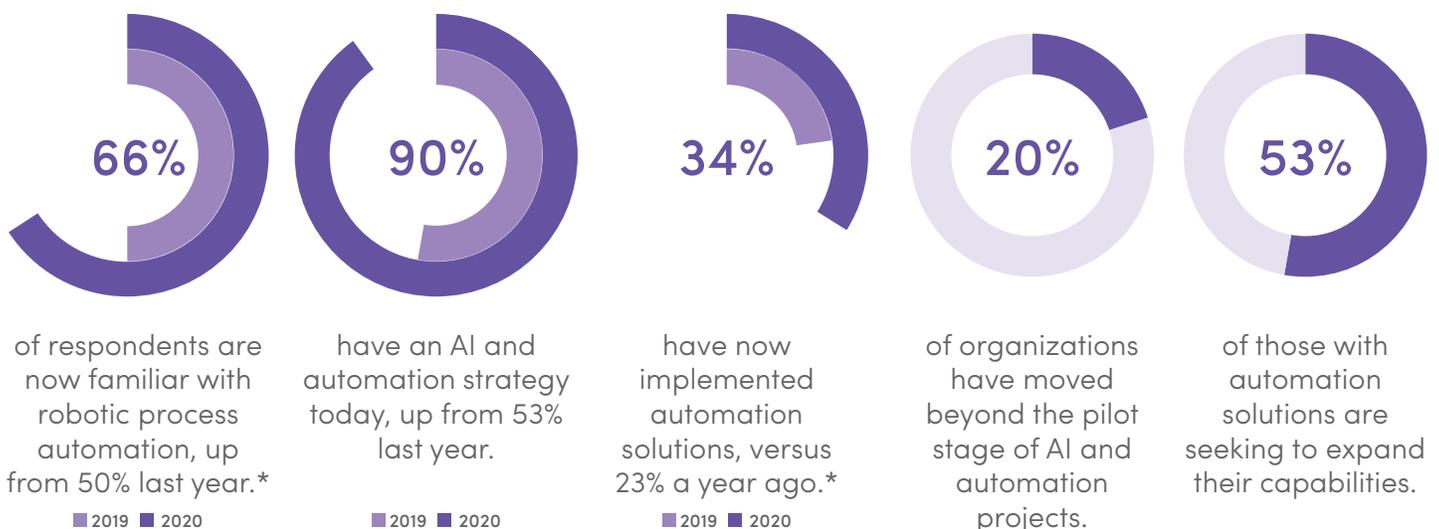
Executive Summary

The need for AI and automation in healthcare organizations has never been more critical, with the pandemic heightening pressures on healthcare executives to increase efficiency, drive growth, and create a better patient experience. An independent survey conducted by healthcare consultancy Sage Growth Partners and sponsored by Olive found that, after years of lagging behind other industries, AI and automation are finally being adopted to enable hospitals and health systems to transform core business processes and operations.

Key survey findings:

- Organizations have found that scaling automation is hard. Respondents listed key challenges such as a longer time to implement and a slower time to ROI than anticipated, as well as the need for additional staff and difficulty identifying which processes to automate.
- These challenges make it imperative to select the right partner. Key criteria for technology providers are healthcare specialization, proven ROI with an enterprise-capable solution, effective security, and performance reliability.
- There is a trend away from building automations in-house and towards full-service models that provide AI-as-a-Service (AlaaS). The 2020 survey found half of those with an existing automation solution prefer an AlaaS model, while only 12% prefer to build it themselves.
- These findings suggest that the future of AI and automation may lie in enterprise-wide AlaaS solutions with proven healthcare expertise and ROI.

In just one year, awareness and adoption of AI & automation in healthcare has grown significantly, but implementation is nascent.



* Sage Growth Partners conducted a similar survey of 115 large healthcare organizations in 2019. Data available upon request.

Introduction

Declining revenues and capacity constraints have only been exacerbated by the pandemic, making it essential for healthcare organizations to prioritize investments that increase efficiency and lower costs — such as AI and automation.

The challenges and rewards of automation are both becoming more apparent. Forrester Consulting reported that 79% of firms achieved tangible results in both employee productivity and customer experience, and it projects that the automation market will more than double from 2019 to 2023¹. However, it also found that malfunctioning and non-resilient automations contributed to the challenges of scaling across the enterprise.

This survey of healthcare executives similarly found that the use of AI and automation is nascent but is reaching the tipping point where needs are heightened and the technology's potential value is becoming more widely recognized and realized. The findings shown here highlight the growth in awareness and adoption of automation, the challenges in its deployment, and lessons learned for healthcare organizations and the technology partners who seek to serve them.

“There’s a tremendous amount of waste in healthcare. The more that we’re able to automate and integrate with other organizations, the more we can reduce waste.”

— CHCIO, major south central health system

Exploding Awareness and Adoption

AI and automation awareness and adoption have grown significantly in just one year, although healthcare organizations are still early in the maturity curve. Given that most executives have an automation strategy in place, it's likely that the use of this technology will grow exponentially in the next two years.

- From 2019* to 2020, executive familiarity with automation grew from **50%** to **66%** and deployment of automation solutions increased from **23%** to **34%** (Figure 1).
- In contrast to 2019, when **47%** had no AI/automation strategy, 90% have a strategy today. However, most organizations are still in the planning (**41%**) or early implementation (**25%**) stage (Figure 2).

FIGURE 1
AWARENESS AND ADOPTION OF AUTOMATION

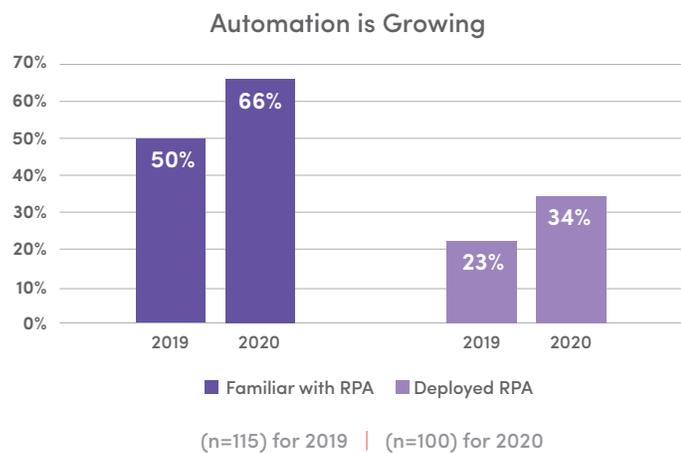
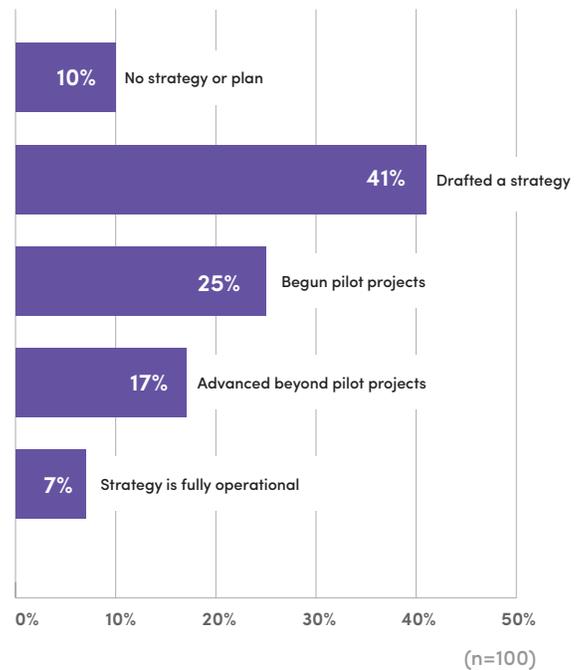


FIGURE 2
STATUS OF AI & AUTOMATION STRATEGIES

90% of organizations have AI strategies but only 7% are fully operational



“To save costs, we can’t just cut staff; we have to figure out how to re-engineer processes via automation, technology, scanning, or using AI. And now we’re looking to prioritize those projects that have a return on investment. So, the whole game has changed with COVID.”

– Kenneth Sable, MD, MBA, FACEP, Regional President, Southern Market at Hackensack Meridian Health

*Note: 2019 survey data is not depicted in graphs. Data available upon request.

Pandemic Fuels Urgent Need for Automation

Fueled by the pandemic, the C-suite increasingly relies on automation to drive their key strategic initiatives. AI and automation are quickly moving from nice-to-have to necessary, especially in revenue cycle, supply chain and clinical administration.

- Three-quarters (**75%**) of respondents say automation initiatives are more important or significantly more important since the pandemic.
- Cutting wasteful spending to drive revenue growth and collections is of utmost importance in accelerating automation imperatives (Figure 3).
- The areas that executives believe would benefit most from automation are Revenue Cycle Management (RCM), supply chain, and clinical administration (Figure 4).

FIGURE 3
FACTORS DRIVING AUTOMATION INVESTMENT AND GROWTH

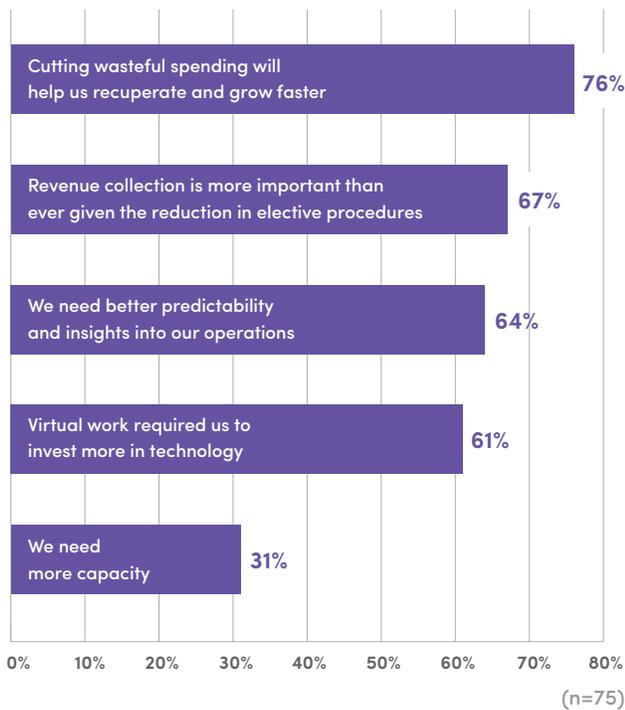
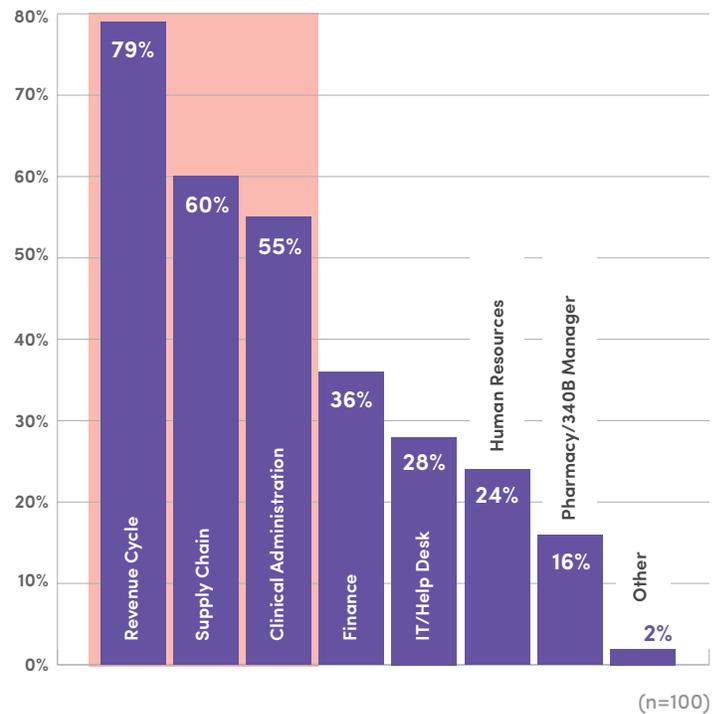


FIGURE 4
TOP AREAS BENEFITING FROM AUTOMATION



* Sage Growth Partners conducted a similar survey of 115 large healthcare organizations in 2019. Data available upon request.

Top Barriers to Scaling AI and Automation

The majority of those who have implemented automation solutions note that the technology is live in only a few areas in their organization. Executives say it's critical to have a partner that can identify the processes that would most benefit from AI and automation and that can continuously monitor projects for additional improvements.

- Among those with existing automation, **59%** currently use it for five or fewer use cases (Figure 5).
- The top implementation challenges are staff constraints, process prioritization, and reliability (Figure 6).
- About half (**53%**) of those with automation plan to expand.

FIGURE 5
NUMBER OF USE CASES LIVE ACROSS THE ORGANIZATION

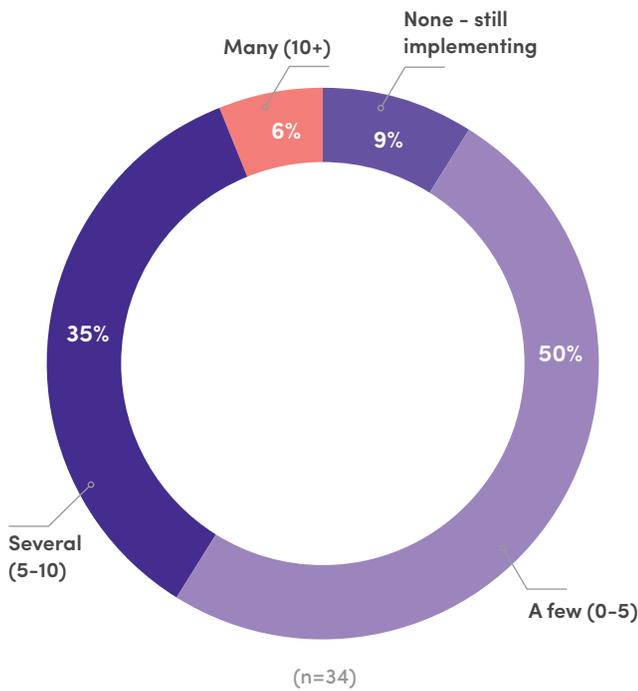
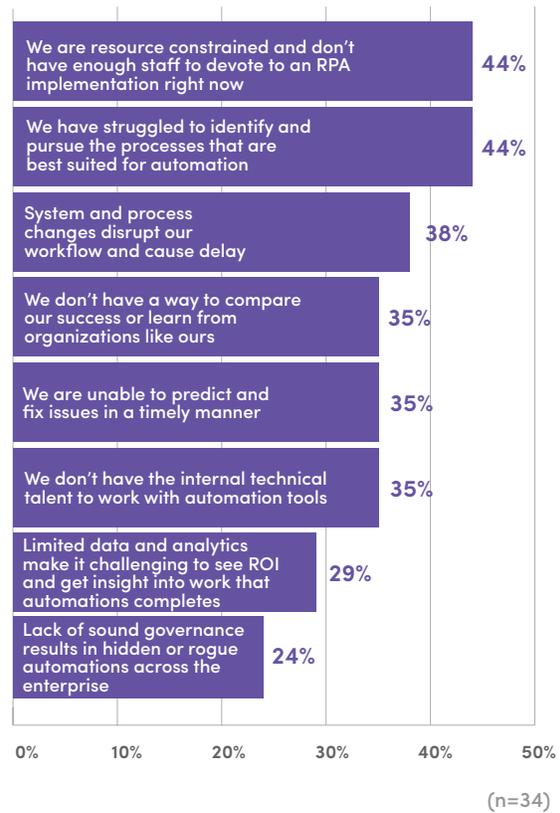


FIGURE 6
THE GREATEST CHALLENGES TO AI & AUTOMATION IMPLEMENTATION



“We’re seeking to contract with vendors in a partnership model. I want to work with people who have some skin in the game, whether it’s upside or downside risk. A vendor should be willing to take risk.”

– Kenneth Sable, MD, MBA, FACEP, Regional President, Southern Market at Hackensack Meridian Health

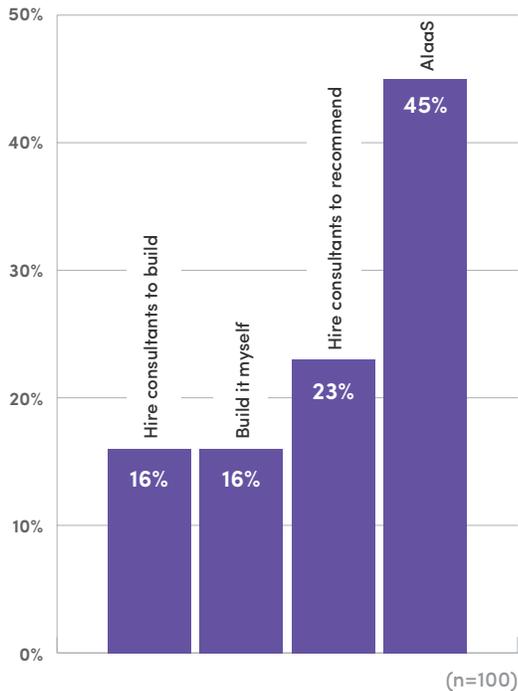
Automation has tremendous potential, especially with the right approach and partner

Some organizations have learned how to optimize automation projects and are already realizing value. Having the right team, approach, and partner are key success factors. While the winning model has not yet emerged, AI-as-a-Service (AlaaS), a full-service model that entails contracting with a technology partner to build, deliver, monitor, and support automations, is increasingly preferred. Those who have deployed automation more widely are realizing more value.

- AlaaS is preferred by **45%**, while only **16%** are likely to build automations themselves (Figure 7).

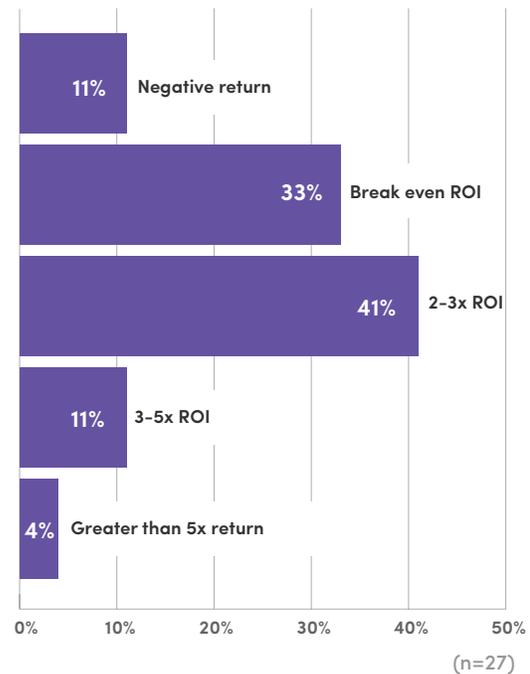
FIGURE 7
PREFERRED AUTOMATION APPROACHES

AlaaS is emerging as a leading model



- Healthcare organizations familiar with automation and those with automation solutions running for more than a year are more likely to prefer AlaaS (**52%** and **62%**, respectively).
- While more than half experience positive ROI from automation, few have achieved an ROI of 3x or greater (Figure 8).
- Using AlaaS can enable organizations to achieve success more quickly, as **50%** of those that have an automation solution in place used their vendor to implement and maintain automation projects.

FIGURE 8
ROI FROM COMPLETED AUTOMATIONS



“We’d want to leverage somebody from the outside since we don’t have the resources to build, manage, and maintain it ourselves long-term. And instead of piecemealing it, we’d love to have one or two vendors that provide most of the capabilities for our health system.”

– Michael Elley, MBA, CHCIO, Baptist Health

“We want to work with a partner that we can build with.”

– CFO and Chief Analytics Officer, western academic healthcare system

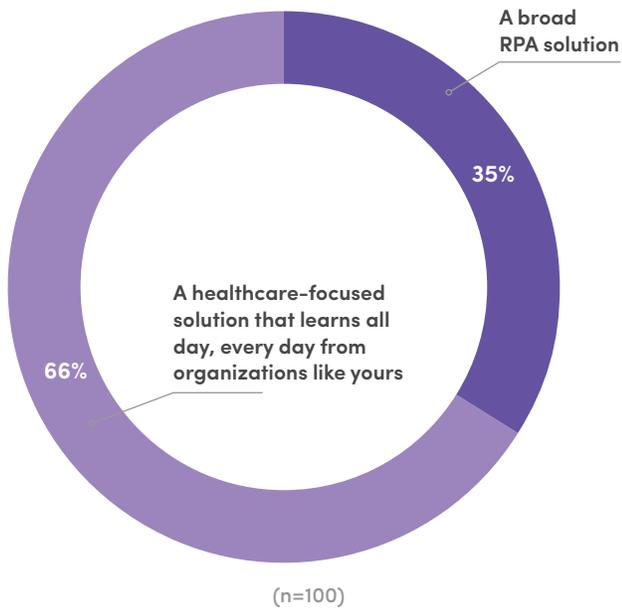
*2019 data from a similar survey conducted by Sage Growth Partners. Data is not shown but is available upon request.

Key Criteria for AI and Automation Success

Given that automation is increasingly necessary but difficult to implement and scale, not all organizations will succeed. As several executives noted when interviewed, poorly executed automation can even set the organization back and make driving organizational buy-in for future automation projects more difficult. That makes having the right partner all the more important. Here are the characteristics executives say they value in a technology partner.

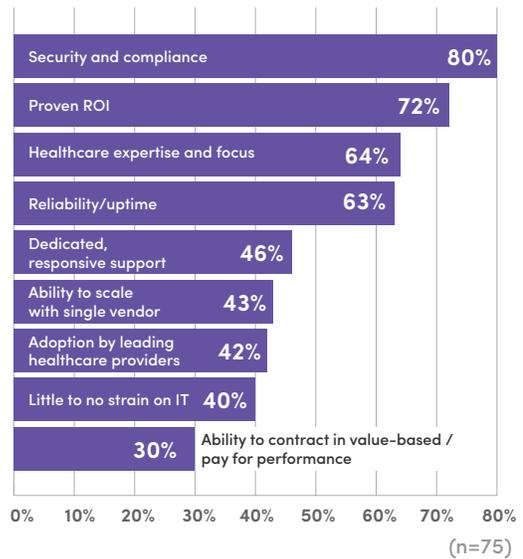
- Two-thirds (**66%**) of respondents prefer a healthcare-focused solution over one spread across multiple industries (Figure 9).

FIGURE 9
TRUST IN BROAD VS. HEALTHCARE-SPECIFIC SOLUTIONS
Healthcare executives prefer healthcare-focused solutions



- Interviewees noted that a comprehensive solution that can start small and grow to cover multiple workflows is preferred over a point solution, so the organization isn't dealing with multiple vendors.
- Solutions with proven ROI have become even more important since COVID. The top criteria for selecting an automation partner are: Security and compliance, proven ROI, healthcare expertise, and reliable performance/uptime (Figure 10).

FIGURE 10
KEY CRITERIA FOR PARTNER SELECTION
Compliance, ROI, healthcare focus, and performance are most important



“A solution built specifically for healthcare is a differentiator in the market. You want to work with somebody who understands your business.”

– Ken Sable, MD, MBA, FACEP, Regional President, Southern Market at Hackensack Meridian Health

“We found that automation costs more than you think it does. It’s not just maintaining the bots. You have to pay for the software and coordination and ongoing maintenance related to changes in your other systems. Anytime you upgrade your EHR, you risk breaking whatever the bot is doing.”

– Bridget Barnes, CIO, Oregon Health and Science University

Conclusion

Adopting automation is a strategic imperative to drive sustained growth and accelerate revenues. The pandemic's impact on financials and staff has heightened the need to invest in efficient and scalable processes, contributing to the burgeoning awareness and usage of AI and automation and moving it from a value-added option to a must-have capability.

However, automation has yet to move beyond the pilot stage for most healthcare organizations today, and some are stumbling as they launch projects or expand to other areas. The risk of failure makes selecting the right AI and automation partner all the more critical. Executives increasingly value partners that specialize in healthcare, can achieve ROI, and can serve multiple areas throughout the enterprise as they expand. The winning model has not yet emerged, but there is a trend away from building automation capabilities in-house towards a full-service model, and most of those with automation and AI in place used this model to become early adopters of the technology.

About the Survey

In 2020, Olive and Sage Growth Partners conducted a survey of how CXOs at leading U.S. healthcare organizations perceive and use/plan to use AI and automation to help address strategic and operational challenges.

- Respondents are 100 leaders of healthcare organizations with revenues exceeding \$800M.
- **76%** are C-level executives (chiefly CIOs, COOs, and CFOs).
- Nearly half (**48%**) are part of health systems.
- The quantitative survey was supplemented by in-depth interviews with six executives.

The 2019 survey yielded 115 respondents, 96% of whom were leaders at organizations with revenues over \$300M; 68% of these organizations were part of health systems.

About Olive

Olive's AI workforce is built to fix our broken healthcare system by addressing healthcare's most burdensome issues — delivering hospitals and health systems increased revenue, reduced costs, and increased capacity. People feel lost in the system today and healthcare employees are essentially working in the dark due to outdated technology that creates a lack of shared knowledge and siloed data. Olive is designed to drive connections, shining a new light on the broken healthcare processes that stand between providers and patient care. She uses AI to reveal life-changing insights that make healthcare more efficient, affordable and effective. Olive's vision is to unleash a trillion dollars of hidden potential within healthcare by connecting its disconnected systems. Olive is improving healthcare operations today, so everyone can benefit from a healthier industry tomorrow.

About Sage Growth Partners

Sage Growth Partners accelerates commercial success for B2B, B2B2C, and B2C healthcare organizations through a singular focus on growth. The company helps its clients thrive amid the complexities of a rapidly changing marketplace with deep domain expertise and an integrated application of research, strategy, and marketing. Founded in 2005, Sage Growth Partners is located in Baltimore, MD, and serves clients such as Philips Healthcare, U.S. Renal Care, Quest Diagnostics, Vocera, iN2L, and Aperture.

