



# Qventus Solutions 2023

Achieving Operational Improvements through AI, Machine Learning, and Behavioral Science



## Qventus Solutions: Achieving Operational Improvements through AI, Machine Learning, and Behavioral Science

### Why This Spotlight?

Qventus Solutions aims to help healthcare organizations create and sustain operational improvements related to patient throughput and capacity optimization management. Qventus addresses operational issues and opportunities through automation, AI/machine learning (ML), and predictive analytics. Depending on organizational needs, the Qventus system can be implemented in perioperative, inpatient, emergency department, and/or command center settings. This report examines customers' experiences and satisfaction with Qventus.

### What Does Qventus Solutions Do?

(a customer explains)

"Qventus provides AI machine-learning analytics to help drive capacity and throughput in our inpatient setting and surgical operative areas. The vendor exports data from our EHR and analyzes that data against their machine-learning algorithms. They also provide predictions that identify where barriers to throughput might exist. They provide prioritized work based on their algorithms."

—VP/executive

### Bottom Line

Respondents leverage Qventus Solutions primarily in perioperative and inpatient settings (a couple use the platform in a command center or emergency department). Customers report seeing improvements in operational efficiencies and optimization of resource utilization. Qventus is viewed as an innovative partner who listens to customer challenges and proactively engages in development opportunities. While customers value the solution's current AI/ML-based functionality, they want to see continued product advancement from Qventus to further increase outcomes and satisfaction.

### Key Competitors (as reported by Qventus)

GE Healthcare, LeanTaaS, TeleTracking

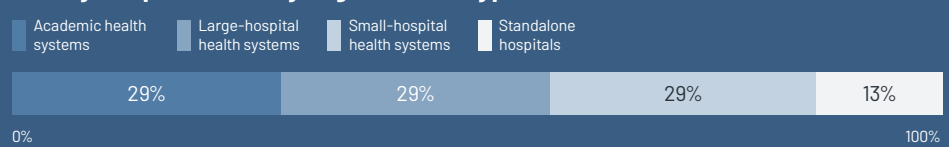
### Number of Customers Interviewed by KLAS

9 individuals from 7 unique organizations (Qventus shared a list of 12 unique organizations; the list represents 100% of the customers that are eligible for inclusion in this study)

### Top Reasons Selected

Unique and robust functionality centered on utilizing real-time data, established relationship with Qventus, recommended by peer, product met specific specialty needs

### Survey Respondents—by Organization Type (n=7)



## Qventus Solutions Customer Experience: An Initial Look

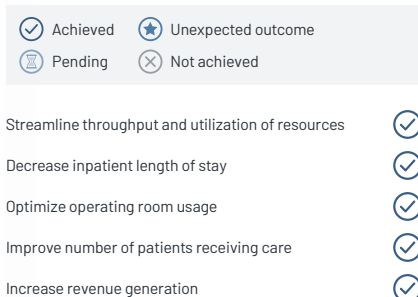
### Overall Customer Satisfaction (n=9)



### Time to See Outcomes (n=8)



### Outcomes Expected by Customers

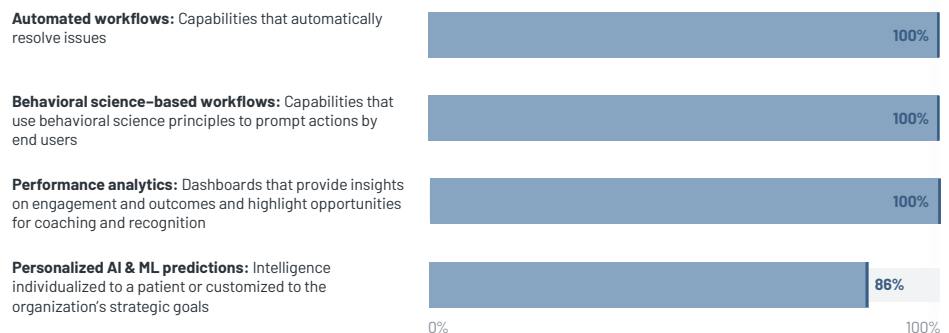


### Key Performance Indicators (1-9 scale)



### Adoption of Key Functionality—by Organization

Percentage of interviewed organizations using functionality (n=7)



## Strengths

Partnership with customers on innovation and development



*"The vendor's strengths are their commitment to innovation and their ability to listen to the individuals that are out in the clinical spaces. Operationally, Qventus tries to listen to what I say about what our challenges are and what is and is not working. Qventus uses that to fuel their fire." —VP/executive*

Product improves operational efficiency and helps optimize resource utilization

*"The vendor's tools help us achieve a significant improvement in terms of operational efficiency. It helps us predict when we are going to have a surge in volume. Once that alert fires, we try to create more capacity by discharging patients or getting patients transferred to absorb and mitigate the incoming surge. Another example is the ability we have to slice and dice the data. Through the use of historical data with Qventus Solutions, we can understand what the boarding constraint is and exactly what time of day that happens." —VP/executive*

Robust functionality specific to the system's various use cases (i.e., inpatient, perioperative, emergency department, and command center)

*"AI, machine learning, and behavioral sciences have been created as specific functionalities in what we have purchased. The package we have purchased works together to fill our schedule. If our schedule is filled, then we are driving our outcomes for taking care of more patients and generating more revenue." —VP/executive*

## Opportunities

Expanded functionality needed to meet some customers' needs



*"The vendor has always been very receptive to any of the things we have requested to accomplish. But there have been times when the solution hasn't been able to completely do what we have wanted it to do. One time, we had to do a workaround. The vendor helped with that workaround, but the solution did not fully meet our needs." —VP/executive*

One respondent noted cost could be prohibitive

*"The vendor's weakness is that their costs are high. They have offered reasonable prices for other pieces we want to implement, but we are going to have software costs every year, even after the implementation, and that will be challenging. The cost impact is huge, and we are looking at how to manage that impact in the long term." —VP/executive*

## Points to Ponder

### What does a customer need to do to be successful with this solution?

#### Customers explain

- **Prior to implementation, work with Qventus to identify opportunities that ensure organization is prepared to be successful:**

*"The best way for customers to implement Qventus Solutions is to begin a conversation with the vendor and, during the vendor's evaluation of the customer's team, highlight what areas need to be streamlined ahead of time and what things need to be in place. Qventus will provide care managers that want to collaborate or have the capacity to help manage a huddle, but customers can handle that ahead of time to enable the optimization. Customers should have the expectation that they are going to have some work to do before they implement things." —Director*

- **Key stakeholders need to be bought in:**

*"Top-level buy-in is the key to success. If I were out shopping for a solution or were to decide on Qventus and wanted to go that route, I would get my leadership team on board. I would look at the stakeholders that need to be a part of and invested in that decision. Those are the kind of people that an organization will need to fully execute things and hold people accountable for using the solutions. The solutions will deliver things for the organization if the players will use the solution. But the organization needs to have that topside push." —VP/executive*

- **Have change management program already in place:**

*"To be successful with this product, buyers need to have a robust change management program, and they need to have key senior hospital leaders helping drive the use of the product." —VP/executive*

#### Qventus explains

- Generate buy-in from stakeholders, including clinical and operational leaders
- Identify key champions (e.g., surgeons, physicians) to help drive adoption
- Communicate benefits for frontline teams and patients
- Celebrate early wins and reinforce desired behaviors to sustain outcomes

### What is the long-term viability of the solution?

The Qventus platform's longevity in the healthcare market is centered on the ability to automate previously manual processes and provide unique, actionable insights that healthcare organizations would have difficulty replicating. Customers note that there is no future path where their organization will revert to manual processes that are now automated. Clients specifically note that Qventus has significant opportunity to continue their impact in the perioperative space, including expanding outside health systems to surgery centers.



*"The longevity of the solution is quite sustained and compelling. From what I have seen in our facility, we are busy trying to grow. I could probably give up a lot of things with budget constraints and things of that nature, but the product is not one of those things. I would figure out how to keep it because that product has become part of the way we do business. The automation, technology, and analytics that the product has given us have helped us be better and will continue to help us push the envelope. So there is no end in sight for the product, honestly. It is profound when other institutions start seeing the product and what it can mean for their bottom line." —VP/executive*



*"We will never go back to a manual process. Now that we have gone to automation, I cannot possibly envision going back. There is an opportunity not only in the hospital systems but also in surgery centers. When we think about longevity, the software definitely has legs to it." —VP/executive*

# Qventus: Company Profile at a Glance

## Founders

Mudit Garg, Ian Christopher

## Year founded

2012

## Headquarters

Mountain View, CA

## Number of customers

12 unique customers live on the platform

## Number of employees

145

## Funding

Qventus is not currently fundraising or seeking capital

## Revenue model

Annual subscription fee and onetime implementation fee

## Healthcare market

National

## Target customer

Large health systems and acute care hospitals, including community-based hospitals and academic medical centers



## Healthcare Executive Interview

**Mudit Garg,**  
Co-Founder & CEO

### How would your customers describe your solution?

Qventus partners with health systems to automate their care operations—all of the operational activities involved in delivering care, from OR access, to discharge planning, to care coordination, and more. Qventus provides a real-time automation platform that integrates with the EHR and combines AI, machine learning, and behavioral science to drive action; best practice solutions to solve key operational challenges in perioperative, inpatient, and other settings, along with discharge planning; and an expert services team to help operationalize the technology and sustain outcomes.

### What is Qventus' biggest differentiator?

Our solution is distinguished by several key factors. Firstly, we address the issue of wasted block capacity through hourly predictions for partial block utilization, enabling personalized surgeon nudges to increase block release likelihood. Additionally, our advanced machine learning capabilities prioritize a personalized open time search based on practice patterns and health system priorities, resulting in an outstanding acceptance rate of 96% or higher. We differentiate further by incorporating non-EHR claims data, empowering hospitals to gain unparalleled insights into crucial referrals and strengthen surgeon referral sources while optimizing OR capacity. Moreover, our platform offers EHR bidirectionality, eliminating manual tasks and human error, and incorporates machine learning in every intervention. Lastly, our solution enhances robot access by unlocking robotic rooms occupied by non-robotic cases, releasing 13% of previously tied-up capacity, while proactively filling time slots with high-value cases through automated surgeon outreach aligned with strategic objectives.

### How is AI used in the solution?

Qventus uses AI and machine learning to make patient- and surgeon-specific predictions. These AI predictions recommend or encourage actions by end users—for example, suggesting a change to a patient's estimated date of discharge or prompting early release of OR block time. In other cases, the predictions trigger automated workflows, such as prioritizing an ancillary services order based on discharge or automatically offering newly available OR time to a surgeon.

### Is your solution integrated into a core system, or is it standalone?

The Qventus automation platform is integrated with the EHR. Qventus integrates with all major EHRs, including Epic, Cerner, Allscripts, and MEDITECH.

## Solution Technical Specifications (provided by Qventus)

### Cloud environment

AWS

### Development platform

Python, JavaScript

### Database environment

RDS, Snowflake

### Mobile application environment

True mobile application

### Security platform

SOC 2 Type 1 compliant with HIPAA attestation,  
SOC 2 Type 2 compliant, ISO 27001/2

### Confidentiality

HIPAA, BAAs

### Data encryption

SSL/TLS encryption, IPSEC VPN tunnel to an AWS VPC, and SSH Secure Shell (in transit); AES-256, Amazon EBS Encrypted Volumes, and AWS S3 Buckets (at rest)

### Integration approach

HL7, FHIR, APIs, flat files

### HITRUST certification

No

### AI

Yes



# Report Information

## Qventus Solutions Performance Overview

All standard software performance indicators

Culture		
Keeps all promises (percent of respondents who answered yes)	(n=9)	89%
Proactive service (1-9 scale)	(n=9)	A+
Product works as promoted (1-9 scale)	(n=9)	A
Loyalty		
Forecasted satisfaction (1-9 scale)	(n=9)	A+
Likely to recommend (1-9 scale)	(n=9)	A+
Overall satisfaction (1-9 scale)	(n=9)	A+
Part of long-term plans (percent of respondents who answered yes)	(n=9)	100%
Would you buy again (percent of respondents who answered yes)	(n=8)	100%
Operations		
Ease of use (1-9 scale)	(n=9)	A+
Quality of implementation (1-9 scale)	(n=9)	A+
Quality of training (1-9 scale)	(n=9)	A

Product		
Delivery of new technology (1-9 scale)	(n=8)	A+
Overall product quality (1-9 scale)	(n=9)	A+
Product has needed functionality (1-9 scale)	(n=9)	A
Supports integration goals (1-9 scale)	(n=9)	A-
Relationship		
Executive involvement (1-9 scale)	(n=9)	A+
Quality of phone/web support (1-9 scale)	(n=8)	A+
Value		
Avoids charging for every little thing (percent of respondents who answered yes)	(n=9)	100%
Drives tangible outcomes (1-9 scale)	(n=9)	A+
Money's worth (1-9 scale)	(n=8)	A+

Software grading scale				
A+ = 8.55-9.0	B+ = 7.65-7.91	C+ = 6.75-7.01	D+ = 5.85-6.11	F = <5.22
A = 8.19-8.54	B = 7.29-7.64	C = 6.39-6.74	D = 5.49-5.84	
A- = 7.92-8.18	B- = 7.02-7.28	C- = 6.12-6.38	D- = 5.22-5.48	

## Reader Responsibility

KLAS data and reports are a compilation of research gathered from websites, healthcare industry reports, interviews with healthcare, payer, and employer organization executives and managers, and interviews with vendor and consultant organizations. Data gathered from these sources includes strong opinions (which should not be interpreted as actual facts) reflecting the emotion of exceptional success and, at times, failure. The information is intended solely as a catalyst for a more meaningful and effective investigation on your organization's part and is not intended, nor should it be used, to replace your organization's due diligence.

KLAS data and reports represent the combined candid opinions of actual people from healthcare, payer, and employer organizations regarding how their vendors, products, and/or services perform against their organization's objectives and expectations. The findings presented are not meant to be conclusive data for an entire client base. Significant variables—including a respondent's role within their organization as well as the organization's type (rural, teaching, specialty, etc.), size, objectives, depth/breadth of software use, software version, and system infrastructure/network—impact opinions and preclude an exact apples-to-apples comparison or a finely tuned statistical analysis.

KLAS makes significant effort to identify all organizations within a vendor's customer base so that KLAS scores are based on a representative random sample. However, since not all vendors share complete customer lists and some customers decline to participate, KLAS cannot claim a random representative sample for each solution. Therefore, while KLAS scores should be interpreted as KLAS' best effort to quantify the customer experience for each solution measured, they may contain both quantifiable and unidentifiable variation.

We encourage our clients, friends, and partners using KLAS research data to take into account these variables as they include KLAS data with their own due diligence. For frequently asked questions about KLAS methodology, please refer to [klasresearch.com/faq](https://klasresearch.com/faq).

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## Note

Performance scores may change significantly when additional organizations are interviewed, especially when the existing sample size is limited, as in an emerging market with a small number of live clients.



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## Our Mission

Improving the world's healthcare through collaboration, insights, and transparency.

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