

Transforming Patient Care

Geisinger

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Geisinger and The Steele Institute for Health Innovation

Geisinger Health System stands as a renowned integrated healthcare leader with approximately 27,000 employees, including 1,700+ physicians across 10 hospital campuses. As of March 31, 2024, Geisinger joined Risant Health, a nonprofit organization created to expand value-based care nationwide.

The Steele Institute for Health Innovation, established in 2018, develops transformative solutions to improve health outcomes and reduce costs through human-centered design. The institute leverages Geisinger's extensive clinical and genetic data, innovation culture, and integrated systems to address critical health challenges using AI, machine learning, data analytics, and automation.

Innovation Operations Organizational Structure

Leadership Structure



Our automation initiatives are guided by our Chief Innovation Officer and VP of Innovations, with direct oversight from the Director of Automation. This hierarchical approach ensures strategic alignment of automation projects with organizational goals.



Specialized Teams

Our structure includes dedicated Data Architect, Business Architect, and Application Developer teams, each bringing specialized expertise to our automation initiatives. We've organized into maintenance pods for existing automations and separate teams for new development projects.

Governance Structure



We maintain robust oversight through quarterly automation council meetings, executive steering sessions, and monthly service line reviews. This governance framework ensures continuous alignment with organizational priorities and stakeholder needs.



Intelligent Automation Hub Achievements

~200

Automations

Implemented across departments

\$104M+

ROI

Cost avoidance, savings and revenue generation

670K+

Hours

Staff time saved

300+

Intakes

Evaluated for automation potential annually

The Intelligent Automation Hub has become a central engine for operational excellence across our organization. By leveraging a diverse technology stack including unattended and attended Robotic Process Automation (RPA), communications mining, and document understanding, we've created a comprehensive automation ecosystem that addresses multiple workflows.

Beyond the impressive financial returns, our most significant achievement has been cultivating a culture of innovation throughout the organization. Staff members now proactively identify automation opportunities, contributing to a virtuous cycle of continuous improvement that enhances both the patient and provider experience.

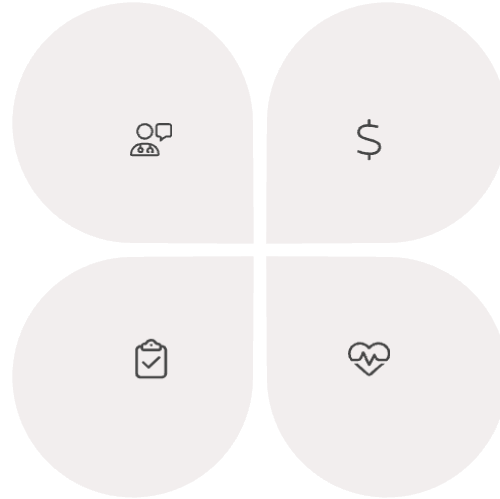
Our Stakeholders Across the Organization

Clinical Stakeholders

Radiology, Pharmacy, School of Medicine and Nursing, and Clinical Automations teams adopting innovative solutions

Support Divisions

Health Information Management, Human Resources, Marketing, and Quality Safety enhancing organizational effectiveness



Administrative Units

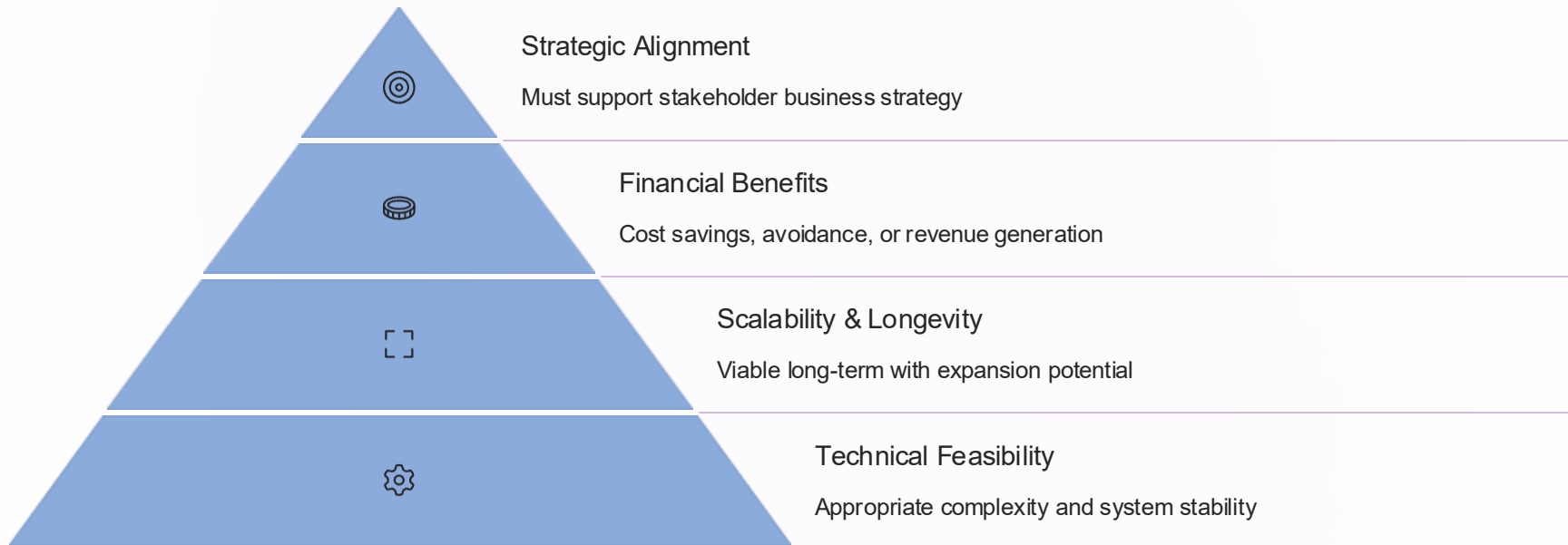
Revenue Cycle Management, Finance and Accounting, and Supply Chain leveraging automation for operational efficiency

Patient-Facing Services

Care Management, Contact Center, and Health Plan (GHP) improving service delivery through innovative technology

Stakeholders range from innovators and early adopters to late majority and laggards across all service lines. Each department plays a crucial role in the implementation and adoption of automation technologies, creating a comprehensive ecosystem of innovation throughout Geisinger.

What We Look For: Strategic Project Selection



Our systematic approach to project selection emphasizes initiatives that deliver substantial benefits while aligning with our strategic priorities. We conduct a thorough evaluation of each potential automation using our prioritization matrix, which weighs factors like financial impact, scalability, and system stability.

This careful selection process ensures we focus our automation resources on high-value opportunities that will deliver sustained benefits. By considering both immediate returns and long-term viability, we maximize the effectiveness of our automation program across the organization.

Beyond Financial Impact: Enhancing Care Quality

For Clinicians

- Reduced monotonous documentation tasks
- Automated nursing chart audits
- Streamlined referral management
- In-basket refill automation
- Optimized ICU bed availability tracking

For Patients

- Improved accuracy in healthcare delivery
- Faster communication via automated letters
- Timely claim submissions
- Personalized well-child visit instructions
- Enhanced care coordination

For Operations

- Streamlined administrative workflows
- Reduced processing errors
- Enhanced regulatory compliance
- More efficient resource utilization
- Data-driven decision support

While financial benefits drive many automation decisions, we place equal emphasis on qualitative improvements to the care experience. By automating routine tasks, we enable our clinicians to focus more time on direct patient interaction, enhancing both provider satisfaction and care quality. Our automation strategy fundamentally aims to support healthcare's core mission: delivering exceptional patient-centered care.

Strategic Workshops: Retroactive to Proactive



Collaborative Ideation Approach

Our 2025 prioritization workshops brought together key stakeholders from HR and Pharmacy to identify high-impact automation opportunities through structured brainstorming and evaluation sessions.



HR Workshop Results

Generated over 150 automation ideas, with 20 prioritized for 2025 development and 42 queued for future implementation. These initiatives focus on time savings, managing FTE attrition, and improving employee satisfaction.



Pharmacy Workshop Results

Produced 151 distinct automation ideas, with 38 prioritized for 2025 implementation. These projects target improved compliance, enhanced auditing processes, accurate claims processing, and quality improvements.



Strategic Value Focus

Rather than pursuing quick wins, our workshops identified strategic initiatives with sustainable long-term value, emphasizing both quantitative metrics and qualitative improvements to workflows and satisfaction.

These workshops represent our strategic approach to scaling automation across Geisinger, ensuring that our resources are directed toward the most impactful opportunities while building broad organizational engagement in our automation journey.

Revenue Cycle Legacy Charges: Automation Success Story



Challenge

Workers' compensation claims required manual replacement of service codes with legacy codes to optimize reimbursement, a time-consuming process that was often overlooked.

\$3M

Projected Annual Revenue

Anticipated yearly financial impact



Solution

Implemented automation that reviews Hospital Claim Edits for Workers Compensation in Epic, creates detailed PDF bills using a crosswalk to replace service codes with legacy codes.

\$117K

Projected Cost Avoidance

Annual resource savings



Results

Generated \$2.6M in actual revenue and \$61,134 in cost avoidance, saving 2,056 staff hours since implementation on October 25, 2024 until end of Q1.

3,954

Hours Saved Annually

Staff time redirected to higher-value activities

This automation project exemplifies our approach to identifying high-value opportunities with significant financial impact. By automating tasks that were previously overlooked due to resource constraints, we've unlocked new revenue streams while improving operational efficiency.

Geisinger's Vision for AI

Patient-Centered

Apply AI to benefit patients with safer, more effective care

Innovation Driven

Continuously explore new applications for healthcare improvement



Responsible Use

Implement AI safely with ethical considerations at the forefront

Stakeholder Focused

Support clinicians, employees, and learners throughout the system

Geisinger envisions a healthcare future where artificial intelligence enhances and elevates every aspect of the care experience. Our mission is to apply AI in safe, effective, and ethical ways that benefit everyone in our ecosystem—from patients and members to clinicians, employees, and learners.

This vision requires thoughtful implementation guided by clear principles that prioritize patient safety, data privacy, and clinical excellence. By leveraging AI responsibly, we aim to transform healthcare delivery while maintaining the human connection that lies at the heart of medicine.

AI Executive Steering Committee

Strategic Leadership

The committee is chaired by the Chief Data and Informatics Officer, bringing together executive stakeholders from across the organization to guide AI implementation and ensure alignment with organizational goals.

Cross-Functional Expertise

Membership spans clinical, technical, ethical, and operational domains, including the Associate Medical Director for AI, Chief Bioethics Officer, Chief Information Security Officer, and other key leaders representing critical perspectives.

Governance Focus

The committee facilitates the safe and responsible implementation of AI at Geisinger, establishing policies, reviewing initiatives, and providing oversight to ensure all AI applications meet rigorous standards for quality and ethics.

Our AI Executive Steering Committee serves as the cornerstone of Geisinger's AI governance structure. By bringing together leaders from technology, clinical practice, ethics, and operations, we ensure a balanced approach that considers all dimensions of AI implementation.

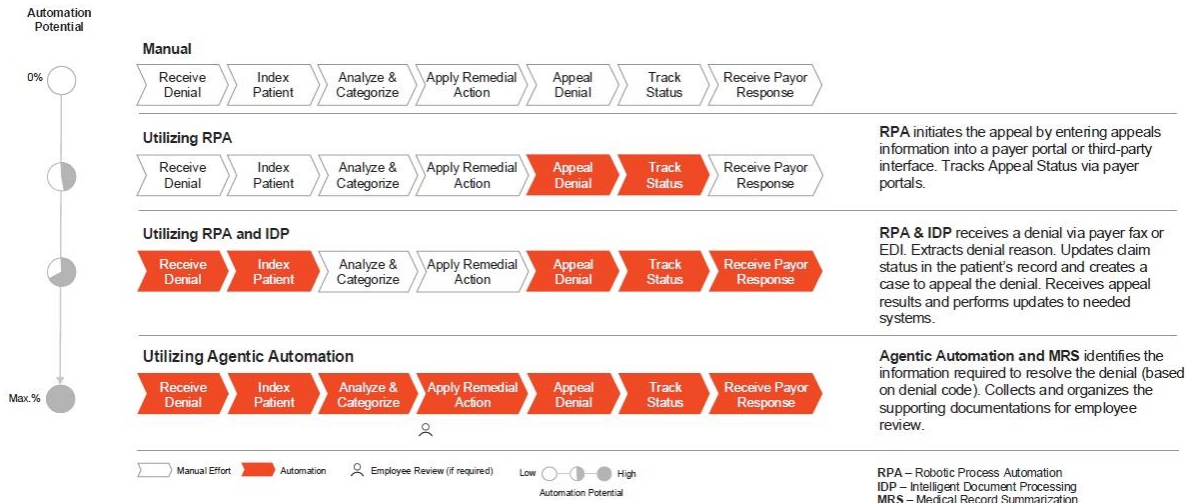
This comprehensive governance framework helps us navigate the complex landscape of healthcare AI with confidence, maintaining our commitment to responsible innovation while accelerating adoption of beneficial technologies across the system.

Nursing Chatbot: In Progress POC for Agentic AI



This exciting proof of concept demonstrates how agentic AI can support nursing staff by providing instant access to best practices and hospital policies. The clinical assistant chatbot puts expert guidance at nurses' fingertips, potentially improving consistency of care while reducing the time spent searching through reference materials or consulting with colleagues.

Prior Authorization: In Progress POC for Agentic AI



Document Analysis

AI scans medical records and prior authorization forms, automatically extracting relevant clinical information and patient details.

Criteria Matching

The system compares patient information against payer-specific coverage criteria, identifying missing elements and determining likelihood of approval.

Automated Submission

For straightforward cases meeting all criteria, the system can prepare and submit authorization requests without manual intervention, dramatically reducing processing time.

Human Collaboration

Complex cases are routed to staff with AI-generated summaries highlighting key decision points, enabling more efficient human review and decision-making.

Prior authorization represents one of healthcare's most burdensome administrative processes, consuming significant resources and potentially delaying patient care. Our agentic AI proof of concept aims to transform this process through intelligent automation of documentation review, criteria matching, and submission workflows.

Questions and Answers

Geisinger