



# When Technology and Expertise Collaborate

A look at the Caresyntax-Relyens partnership  
and success stories across Europe

caresyntax®

relyens

In 2019, Caresyntax, a surgical data and intelligence platform company, formed a strategic alliance with the leading European risk management mutual group Relyens. Since then, these two industry innovators have been making waves with their impact on healthcare systems across Germany, France, Italy and Spain. The companies have partnered with major hospital groups to collaborate in streamlining processes, reducing risks, and improving patient outcomes. Working together with leaders in hospitals and the Medtech industry, the two companies initially combined the Caresyntax software capabilities with the Relyens service offering. Looking forward, the group is now going to market at scale with capabilities that combine Relyens risk management services with Caresyntax AI-enabled technology, algorithms, and playbooks for European IDNs that have resulted in significant cost of care savings and quality improvements.

## The foundational era of Caresyntax and Relyens

Gone are the days of short-term agreements and plans. Enacting change requires investment in lasting relationships in order to make meaningful changes for healthcare systems, with the patient at the center of every decision. In 2019, Bjoern von Siemens, Co-Founder of Caresyntax, and Pierre-Yves Antier, Head of Strategy and Innovation at Relyens met at a conference in London, and the two ideated a novel collaboration between the two companies, with the vision to improve the European Healthcare Ecosystem.

As the European market leader in hospital liability insurance for facilities and medical professionalism, Relyens recognized the importance of innovation and opportunities to improve medical services such as identifying and minimizing inherent risks.

They found the perfect complement in Caresyntax. The technology company could support Relyens' efforts to improve patient outcomes by applying proprietary software and AI to analyze large volumes of video, audio, images, device data, clinical, and operational data in and around the OR. Caresyntax's platform allowed Relyens to use meaningful surgical data to anticipate and better manage medical risks.

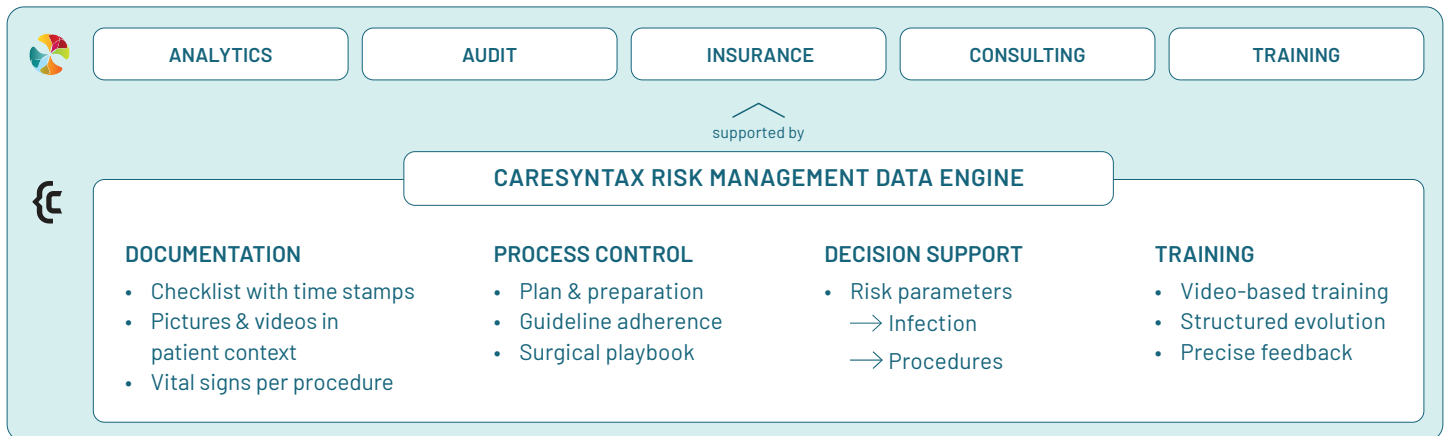
With Caresyntax's surgical data and OR integration platforms seamlessly connected to Relyens knowledge of medical malpractice and risk management and prevention, the pair offer a unique combination of services and technology to their healthcare partners.



Bjoern von Siemens and Pierre-Yves Antier at the Frontiers Health conference in 2021

# Designing an Advanced Market Engagement Strategy

To align their customer-centric philosophy, Caresyntax and Relyens joined forces and developed a combination suite of services and technology called Risk Management Software as a Service (RMSaaS) using the Caresyntax integrated technology platform. The combined offering can be used to distill highly noisy, disparate data from the operating environment to inform and advance positive short term outcomes and long term improvements for the overall system. The two companies also built a unified OR Integration European sales team. The target was clear: growth and deployment of this new digital patient safety offering.



The Caresyntax-Relyens collaboration offers a unique combination of services and technology that reduces risk and improves patient care.

Over the last several years, Caresyntax has seen significant success with a joint go-to-market approach and achieved significant growth in 2022 and 2023. The companies established a new model of “Value Partnerships” with key hospital systems. Value Partnerships are long term engagements that include collaboration and co-development of novel technology enhancements through multiple years of iterative development. The Value Partnership model creates a win-win opportunity for both industry and hospital partners, with clinical and operations leaders informing the development and benefiting from novel technology and risk management programs. Ongoing examples of Value Partnerships are listed below.

# Success stories of the Caresyntax and Relyens collaboration

## France

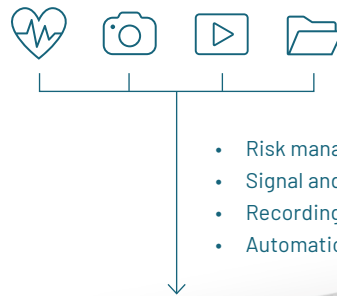
### APHP – Deployment of a novel AI-based program to improve patient safety and support surgical education

Intel® joined the Caresyntax/Relyens partnership to propose a novel Value Partnership with France’s largest hospital system. The Value Partnership includes launch of the Connected Surgery program – an AI-driven and OR-hosted integration platform – into the operating rooms of Assistance Publique-Hôpitaux de Paris (APHP). This innovative program integrates within existing hospital infrastructure, and enables delivery of novel applications including automatic segmentation. Automatic segmentation assesses surgical phases of specific workflows, utilizing real-time videos and data from the operating room. The program is deployable in both on-site and cloud environments, and can be used intraoperatively or postoperatively.

Its primary objectives:

- Automatically annotate surgical video
- Optimize operating room efficiency
- Improving patient safety
- Supporting surgical education and training

With its network of 38 hospitals, serving 10 million patients and conducting 100,000 surgeries annually, (APHP) is poised to play a pivotal role in the widespread adoption of Relyens and Caresyntax services.



- Risk management data engine
- Signal and data routing
- Recording
- Automation



Caresyntax OR box powered by Intel®

**Prof. Eric Vibert**  
at the APHP

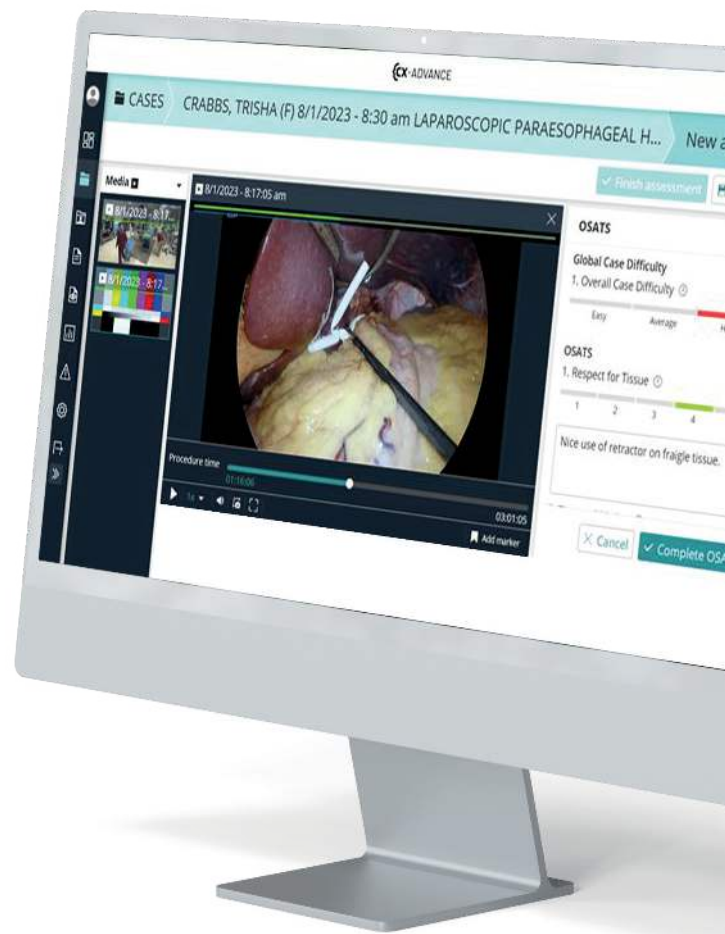
“Even during scheduled surgery, the risk of complications is never zero. Synchronous recording of information from different human activities during an operation is a great way to improve the safety of care. In the event of postoperative complications, objective analysis of surgical and anesthetic facts with images allows a better understanding of the situation, avoids delays in management, and fosters resilience within the surgical and anesthetic teams to continuously improve.”

 Germany

## University Hospital Bonn: Video-Based Assessment

Located in Beethoven’s hometown of Bonn, the University Hospital of Bonn (UKB) consists of 38 clinics that see nearly half a million patients every year. With 8,300 employees, UKB is one of the largest employers in Bonn. With a continuous strive for knowledge and improvement – UKB partnered with Caresyntax and Relyens in 2023 for two projects:

- Implementation of the Caresyntax risk management data engine to **identify, assess and reduce patient risks in robotic surgery.**
- Video-based assessment (VBA) in robotic-assisted visceral surgery to **accelerate the learning curve and improve the performance to safely complete commonly performed visceral procedures.**



Video-based assessment software by Caresyntax

Spain

## Virgen de la Arrixaca University Hospital In Murcia: Elevate Safety Standards

The Hospital Universitario Virgen Arrixaca is the main hospital of the region of Murcia located in the south east of Spain. It is the referral centre for a population of 1.4 million individuals living in the area. The hospital has 1,200 beds available for admissions.

Relyens and Murcia's health department have entered into a partnership to implement Caresyntax's cutting-edge technology in 30 operating rooms at the Virgen de la Arrixaca University Hospital.

- Install full system of Caresyntax OR integration platform with **capability to record OR signal and data streams.**
- Provide the hospital with possibility to **measure clinical key performance indicators.**

Through this collaborative initiative, the hospital aims to enhance the monitoring of operating rooms at the Virgen de la Arrixaca University Hospital, ultimately advancing patient safety.



**Dominique Godet**  
CEO of Relyens

"Our Group has set itself the mission to act and innovate alongside those who work for the common good to build a world of trust, in order to contribute to improving patient care by delivering concrete innovative solutions. To set improvement processes in motion, we must provide hospitals and health facilities with the necessary tools and this is precisely what we're going to do at the Virgen de la Arrixaca Hospital in Murcia."



Caresyntax Digital Surgery Software

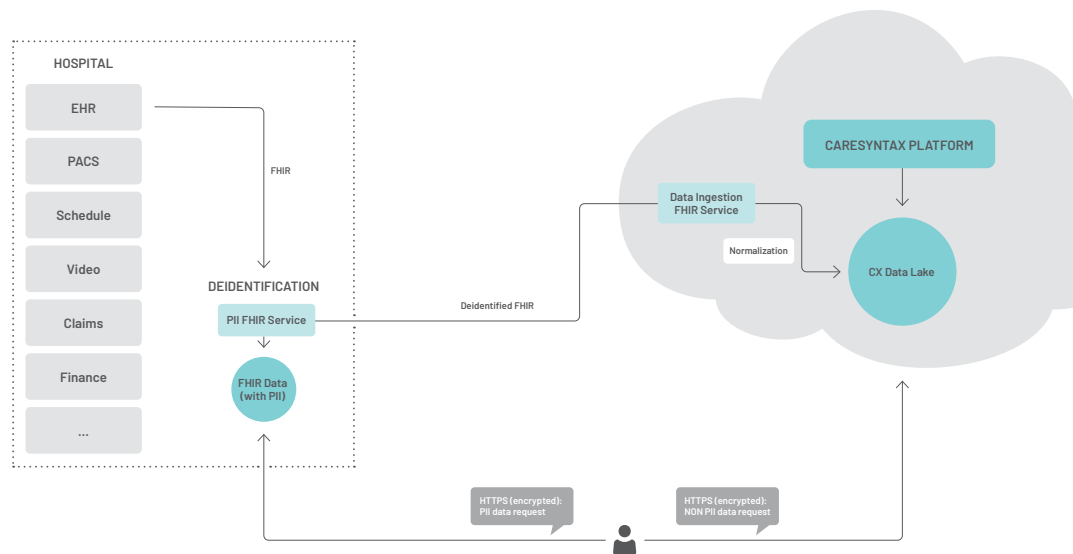
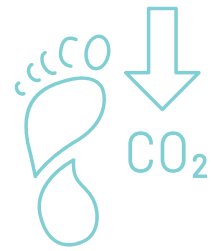
Italy

## Villa Betania: Successful Cloud Deployment Optimizing Care

Cloud-based solutions are highly scalable, adding or reducing resources as a hospital's needs change.

The Villa Betania Clinic with its 250 beds installed CareSyntax-Relyens solutions in the cloud. This reduced upfront hardware costs and can avoid 30% of CO<sub>2</sub> emissions as result of more efficient energy consumption.

The further development of advanced AI algorithms to detect risk in more specific way is dependent on large data sets. The cloud deployment is a requisite for gaining sensitivity and specificity in predicting surgical risk.



\* This is a schematic view of hybrid cloud architecture, data schematics of implemented cloud in customer site can vary.

# RMSaaS is transforming surgery, reducing risk costs and adverse events

Through these partnerships, Caresyntax with Relyens have highlighted how an innovative collaboration model between insurers and a tech-enabled surgical intelligence platform was successfully scaled across multiple European countries via the unique Risk Management Software as a Service (RMSaaS) offering.



**> \$500**  
less costs per case

### a. Economic impact at the hospital

Based on efficiency improvements and reduction of complication risks, hospitals can save over **\$500 per case\*** from installation of the Caresyntax platform. Revenue benefits are also realized through surgical efficiency & block scheduling with 8% increase in operating room case volumes, and 39% increase in block utilisation. Even more impressive, simply using data and data science for clinical quality improvement has meaningful impact to the bottom line margins. Caresyntax Clinical Data Services helped a hospital transform their bariatric service line profit profile by improving ventralhernia repair cases (usually associated with financial losses) with a net margin increase of \$15k per case.



**£55.52 M**  
cost saving per year

### b. Cost savings and improved patient quality of life

Surgical site infections account for up to 18% of all healthcare-associated infection. The Caresyntax data-driven surgery platform incorporates the most common risk factors for SSI, to identify high-risk surgical patients before they leave the operating theatre. An economic analysis was performed to assess the costs and health outcomes associated and the base-case analysis indicates that the intervention leads to a **cost saving of £55.52 M** across the total NHS colorectal surgery patient population in 1 year.



**~50%**  
less costs of hardware

### c. Reduction of CapEx costs

Additionally, hospitals now have smaller footprint required with the Caresyntax Connected Surgery digital integration solution, in addition to an average **50% reduction in cost from traditional hardware integration, reducing total CapEx costs**. Caresyntax and Relyens developed the only software-based OR integration solution that offers surgical teams a more cost efficient and convenient cloud-based platform with real-time decision support powered by Intel®.



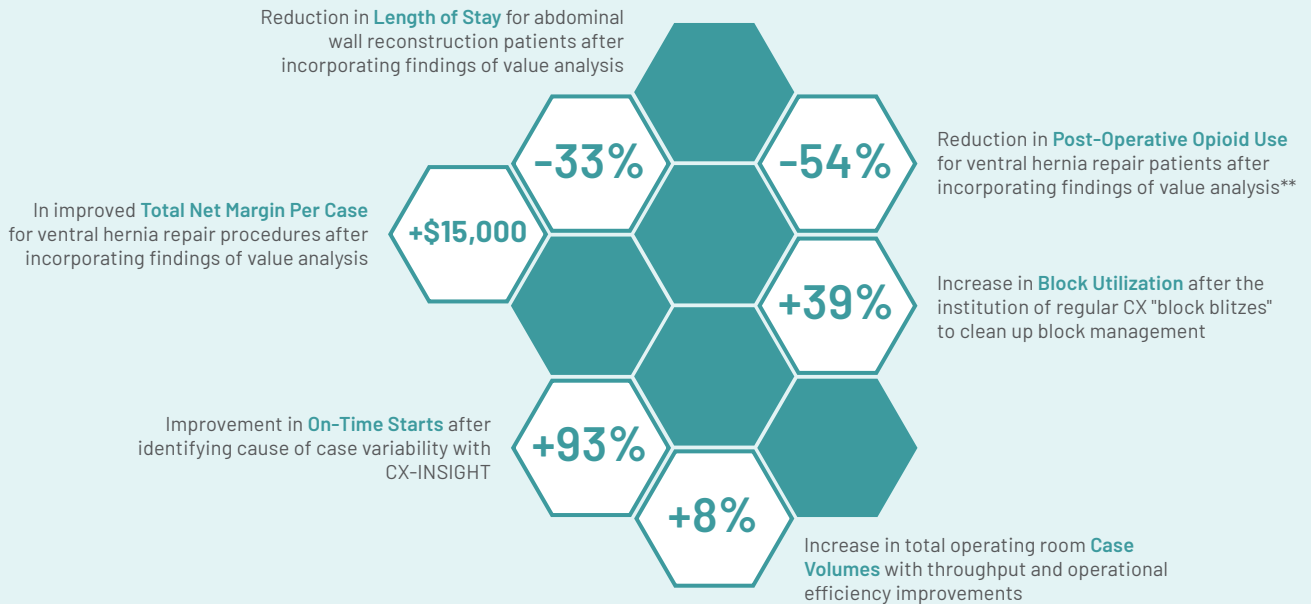
**~50%**  
improvement in surgeon skills

### d. Increased patient safety

As integration of predictive analytics and preventive technologies in surgical procedures can help identify potential health issues early, the adoption of such advanced technologies can reduce the likelihood of costly complications and improve overall patient health. The latest latest Caresyntax objective procedure-specific assessment (OPSA) utilizes AI to support surgeon training and education, resulting in a **50% improvement in surgeon skills within a period of 3 months, and a reduction of patient x-ray exposure by 25%**.



## Sample Results:



The Caresyntax-Relyens partnership has led to positive changes in healthcare delivery, patient outcomes, and risk management. Future collaborations will focus on creating patient-centric solutions that improve the overall experience, including tools for personalized medicine, optimized patient pathways, and greater access to healthcare information.

\* based on the combined value of our tech and Relyens services , and an analyst estimate based on our joint research with IoT observatory  
 \*\* findings from studies done in Southeast Academic Medical Center, Southwest Community Hospital and Midwest Academic Medical Center

Research and development of this paper was made possible by Caresyntax: tools to make surgery smarter and safer. To learn more about about caresyntax, visit us at: [caresyntax.com](https://caresyntax.com)

# Caresyntax worldwide

3,000  
ORs

32,000  
Surgical  
Teams

3M+  
Procedures  
per year



[caresyntax.com](https://caresyntax.com)

**BERLIN**  
Komturstraße 18A  
12099 Berlin  
Tel: +49 (0)30 71302970  
[caresyntax@caresyntax.com](mailto:caresyntax@caresyntax.com)

**SAN FRANCISCO**  
900 Larkspur Landing, Suite 120  
Larkspur, CA 94939  
[info@caresyntax.com](mailto:info@caresyntax.com)