

The catalyst for enhanced patient experiences and efficient treatments

The Consejería de Sanidad of the Community of Madrid enlisted NTT DATA to build Infobanco, an innovative platform aimed at improving healthcare through advanced data management.



Dirección General de Investigación, Docencia e Innovación
CONSEJERÍA DE SANIDAD



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Challenged by the complexities of unifying disparate data sources, the goal was to provide more efficient treatments, reduce unnecessary procedures, and improve patient experiences. Infobanco meets this need by compiling, standardizing, and analyzing healthcare data, leading to significant improvements in decision-making and operational efficiency.

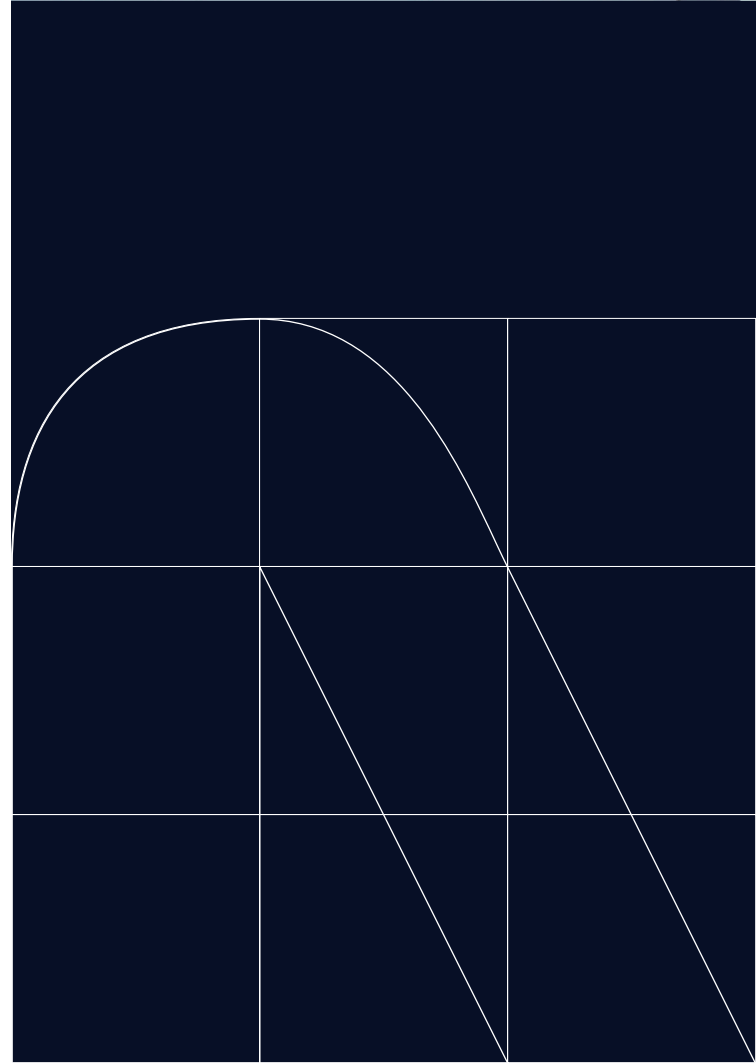
Looking forward, Infobanco's expansion and integration with the European health data space promise even greater advancements in healthcare.

The client

The Consejería de Sanidad of the Community of Madrid, responsible for health policy for around seven million citizens, recognized the need for a platform that could integrate and standardize health data from various sources to improve patient care, encourage innovation, and advance biomedical research.

The project, with a budget of €1.6 million for its initial phase, was co-financed by the Consejería de Sanidad, the Ministerio de Ciencia e Innovación of Spain, and the European Regional Development Fund (ERDF), symbolizing the Community of Madrid's commitment to modernizing public services and fostering public-private collaboration.

The client's objective was to implement a regional data network architecture that serves as a standardized health data repository, aggregating data from various clinical, research, and administrative sources.



The challenge

To create an advanced platform that offers an integrated environment for the seamless collection, storage, and analysis of health data, is a complicated endeavor. It requires addressing multiple challenges such as developing a regional data network architecture specifically designed for the healthcare system or merging data from different sources into a unified, meaningful whole. Ensuring data compatibility, maintaining data integrity, and safeguarding sensitive information are all critical issues that need to be expertly managed.

The platform was intended to be of immense utility in various facets of the healthcare sector. It aimed to drive improvements in patient care, foster innovation, promote value-based healthcare (VBHC), advanced biomedical research, and support other secondary uses.

Meeting these ambitious goals requires a system that is not only technologically advanced but also intuitive and user-friendly for healthcare professionals.

Moreover, the implementation of Infobanco required a shift in current practices and workflows, which can often present a significant change management challenge. Effective training and support systems must be in place to ensure a smooth transition to this new platform.

Despite these challenges, the successful deployment of Infobanco will revolutionize the healthcare sector, offering a data-driven approach to patient care and medical research. It embodies a critical step forward in global healthcare innovation.



The solution

As the driving force behind the healthcare system of Spain's largest city, the Consejería de Sanidad of the Community of Madrid is dedicated to constantly improving the services it offers to its over 7 million citizens. Recognizing the transformative power of digitalization and state-of-the-art technological solutions, the Consejería is focused on leveraging these tools to further its mission. To do so, they brought on NTT DATA, along with consortium partners Better and RHEA and Veratech, to design, develop, and implement a technologically advanced solution named Infobanco, an ambitious project with a timeline of one year.

The Infobanco system, designed to revolutionize the healthcare sector, is the premier data platform that enables the merging of clinical research with practical healthcare. It facilitates the creation of artificial intelligence projects, which, after validation, are made accessible to healthcare providers for everyday use.

The solution is first being introduced at the Hospital Universitario 12 de Octubre, in Madrid, which serves as the pilot for this pioneering network model that allows inter-hospital data sharing.

Beyond elevating the quality of healthcare and advancing biomedical research, Infobanco also significantly improves patient experience. It does this by widening the access to medical care, allowing patients to view their medical history and test results easily, and facilitating early diagnosis and intervention for diseases.



To achieve its ambitious goals, Infobanco combines three innovative platforms:

- **The distributed data lake** - processes vast amounts of real-time data, compiling comprehensive patient histories that provide a panoramic view of each patient's health journey.
- **The standardized clinical repository** - forms a consolidated and organized database of this clinical data, ensuring that all relevant health information is readily accessible.
- **The advanced data analysis environment** - links the worlds of research and practical healthcare, providing a secure platform for the development and application of AI-driven projects. This allows healthcare providers to monitor patient conditions proactively and implement AI-supported decision-making, substantially augmenting their existing capabilities.

What sets Infobanco apart is its strong governance and security model, equipped with the highest security measures, including certifications in the National Security Scheme and anti-hacking tests. This model ensures data traceability, robust data security, and secure access to the exact information a user needs. By implementing Infobanco, we aim to enhance the quality of healthcare decision-making, optimize treatments, and ultimately reduce healthcare costs. The system's flexibility and secure architecture have already earned high praise from our client who sees it as a path towards more structured and standardized healthcare systems.

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Infobanco is a step forward in achieving our goals of implementing a much more efficient healthcare system, with better service for the 7 million citizens who are likely to use the healthcare of the Community of Madrid. We are proud to advance with a pioneering system in the healthcare sector that positions us as one of the most advanced administrations in health matters, so that citizens have a better experience and can continue to trust in the public system as they have done so far.

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Representative of the Community of Madrid

The results

The implementation of Infobanco is set to significantly transform the Community of Madrid's healthcare sector. By enhancing data quality and volume, the platform will enable more efficient treatments, reducing hospitalization rates and boosting overall efficiency. It also minimizes waste, especially by reducing duplicate tests. Infobanco provides real-time visibility into operations, leading to more effective decision-making, and ultimately, better patient care.

Furthermore, it significantly improves the intelligence of the healthcare system, fostering a superior user experience with more accessible medical assistance, and more proactive detection and treatment of diseases. It's an evolutionary step towards a more advanced, efficient, and patient-centered healthcare system.

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With this project, we aim to go much further and make possible a unified vision of all electronic systems so that all information in the hospital network can be processed. We are talking about a learning and research platform that, for the first time, includes a standardized repository that allows all clinical information to be aggregated in a single site, and a tool that allows for the evolution of current systems. Undoubtedly, it is one of the most avant-garde projects in the global healthcare sector and demonstrates, once again, our strength in technological innovation and improvement of clinical practice and research.”

Jordi Fontestad
Director Data Health Spain
NTT DATA



Next steps

As we look ahead, the roadmap for Infobanco envisions an expanded scope and enhanced connectivity. The intention is to roll out the platform across an extensive network of regional hospitals, creating a comprehensive, interconnected data landscape. This expansion will allow more comprehensive access to health data, contributing to a more efficient healthcare system across the region.

But the ambition for Infobanco doesn't stop at regional boundaries. Plans are also in place to link it to the European health data space. This integration will foster cross-regional collaborations, enabling data sharing and joint projects across different European member states. This ambitious plan signifies a significant step towards advancing global healthcare systems, as it would not only strengthen the data landscape within Europe but also pave the way for better healthcare policies and strategies. It embodies the potential of Infobanco to become an instrumental tool in global healthcare, improving patient outcomes on a larger scale.

Why NTT DATA

The extensive understanding of both the healthcare sector and the technology domain, coupled with the capabilities to scale up projects and the expert multidisciplinary teams that were put together, empowered NTT DATA to deliver the most effective solution for the Consejería de Sanidad of the Community of Madrid.

Beyond just delivering the solution, we provide a broad range of skills and supplementary expertise in domains such as consultancy, digitization, automation, data management, and system integration. In addition, our comprehensive network of partners boosts our capability to participate in collaborative ventures with other tech providers, assuring that we extend a holistic service to the Consejería de Sanidad of the Community of Madrid.

For further information

www.uk.nttdata.com

