



Enabling network-wide digital pathology across hospitals in Catalonia to improve access and efficiency

Customer story



What

A network-wide digital pathology initiative connecting Hospital Clínic de Barcelona and Hospital General de Granollers within the C17 hospital network to improve collaboration, streamline workflows, and expand access to pathology expertise across Catalonia.

Where

Catalonia, Spain. The initiative brings together Hospital Clínic de Barcelona, which processes more than 50,000 biopsies annually, and Hospital General de Granollers, which contributes an additional 12,000–13,000 biopsies, approximately 5,000 cytologies, and 50 autopsies per year.

Challenge

Pathology teams were facing growing diagnostic demand while needing to provide consistent access to specialized expertise across multiple sites. Traditional workflows limited collaboration between hospitals and made it difficult to efficiently distribute cases across the network. The increasing volume of pathology cases also required a more connected and scalable approach to workflow management.

Solution

The hospitals implemented the Philips IntelliSite Pathology Solution to digitize pathology workflows and connect expertise across the C17 network. By enabling slide scanning, image management, and digital case review, pathology cases can be shared and distributed dynamically between sites, ensuring access to the right expertise regardless of location. The digital workflow also standardizes operations, eliminates dependence on physical slide transport, and supports more efficient collaboration across institutions.

Hospitals across the Barcelona-based C17 network, including Hospital Clínic de Barcelona and Hospital General de Granollers, are leveraging digital pathology to transform how cases are accessed, shared, and diagnosed. By implementing a scalable digital pathology solution, the network enables faster workflows, cross-site collaboration, and improved diagnostic confidence to support more timely and informed patient care decisions.



Driving digital pathology across a hospital network

Hospital Clínic de Barcelona and Hospital General de Granollers, both part of the C17 network, are working together to improve access to specialized pathology services across the region. By adopting digital pathology, they are connecting expertise, streamlining workflows, and responding to growing diagnostic demand across multiple sites.

Hospital Clínic de Barcelona processes more than 50,000 biopsies annually, while Hospital General de Granollers contributes an additional 12,000–13,000 biopsies, alongside approximately 5,000 cytologies and 50 autopsies. Together, these volumes highlight both the scale of demand and the need for a more efficient, connected approach.

Connecting expertise across the network

To address this challenge, both hospitals transitioned to digital pathology using Philips IntelliSite Pathology Solution. This enables cases to be distributed dynamically across the C17 network, ensuring that the right expertise is applied, regardless of location.

This connected workflow allows the network to balance workload, access subspecialty expertise, and enable remote collaboration between hospitals.

“Workload surges within our network can be managed by providing remote assistance, and we can offer more specialized reference services.”



Antonio Martínez Pozo, Head of Anatomical Pathology Service, Hospital Clínic de Barcelona

Standardizing efficient workflows

By digitizing slides and making them rapidly available on-screen, both hospitals have established a more standardized and efficient workflow.

Pathologists no longer rely on physical slide transport and can instead review, annotate, and compare cases using digital tools. This not only accelerates case review but also improves consistency across sites.

“Our digital pathology workflow allows preparations to appear on the pathologist’s screen in less time, with no risk of deterioration or loss.”



José Ramón Hernández, Head of Projects and Systems, Hospital Clínic de Barcelona

Toni Alonso, Head of Projects of Hospital General de Granollers, explained that because analog pathology workflow is tied to the microscope, it limits where, and by whom, slides can be viewed. “We implemented The Anatomical Pathology Digitalization Project to overcome these limitations,” he said. “This project eliminates the microscope, digitizes the studies, and allows pathologists to view cases on a computer screen. From anywhere in the world, we can send, review, and diagnose a case. This allows us to collaborate with other centers or pathologists, no matter where they are.” Hospital General de Granollers selected Philips as its digital pathology partner, choosing a proven and scalable solution that combines hardware, software and storage. The solution includes a scanner that converts tissue on slides to digital images and an image management system consisting of a pathology viewer with sophisticated software tools and a server and storage application.

Scanning is easy and efficient. "The different samples are placed in racks, and the scanner picks up each preparation, identifies the tissue to be scanned, and essentially functions as a microscope within a scanner, converting the image into a digital format," explained Inma Mendez, M.D., Head of the Anatomical Pathology Service, Hospital General de Granollers.

Pathologists access the digital slides via the Philips image management system. Personal worklists can be arranged and sorted according to pathologist preference, and search and filter functionality make it easy to find cases. "This viewer is very intuitive. Even I, without any knowledge of anatomical pathology, can navigate through an image," Alonso said. The image management system also provides a real-time collaboration tool that includes the ability to share control of the screen and annotate and measure samples.

Solution addresses common concerns

Barriers to adoption of digital pathology include concerns about the time involved in converting tissue samples to digital slides and the significant storage needs. With the solution used at Hospital Clínic de Barcelona, pathologists have discovered those concerns are unfounded. They use a fully automated Pathology Scanner SG300 that delivers high throughput with a 300-slide capacity and a high first-time-right rate. Each slide is scanned at the equivalence of 40 times magnification (0.24 $\mu\text{m}/\text{pixel}$) for sharp, high-resolution images. "It is true that digital pathology requires scanning the preparations, which takes time," said Adela Saco, M.D., Anatomical Pathology Specialist of Hospital Clínic de Barcelona. "However, since these are high-load, continuously operating scanners, digitization can be performed overnight. The next morning, everything has already been digitized."



Enhancing multidisciplinary collaboration

Digital pathology enables seamless collaboration across hospitals and multidisciplinary teams. Cases can be shared instantly, supporting consultations, second opinions, and multidisciplinary discussions. The digital workflow enables more effective collaboration across care teams by allowing cases to be shared easily during multidisciplinary meetings. The digital pathology solution aids in presentations to pathologist colleagues as well as other members of the care team. "For pathologists, this has been a turning point," Dr. Saco said. "Before the integration of digital pathology, we could not present cases in committee meetings. This has transformed how teams work together, enabling more precise and timely clinical decisions. Now, we can make more precise treatment decisions because we can present cases more effectively and provide information in a more accurate manner."

"Before the integration of digital pathology, we could not present cases in committee meetings. Now we can provide information more effectively and support more precise decisions."



Adela Saco, Anatomical Pathology Specialist,
Hospital Clínic de Barcelona

Scaling with growing data demands

A common concern many hospitals have relates to storage and archiving, given the large data volumes associated with each digital slide. This challenge is particularly evident at **Hospital General de Granollers**, where the scale of digital pathology operations highlights the need for scalable infrastructure.

"A single study takes up about two gigabytes, and we are currently handling around 300 studies per day."



Toni Alonso, Head of Projects,
Hospital General de Granollers

To manage this effectively, the hospitals leverage cloud-based archiving, enabling them to scale storage without expanding on-site infrastructure while ensuring secure and efficient access to data across the network.





Laying the foundation for AI-enabled pathology

With digital workflows in place, both hospitals are building toward integrating AI and advanced image analysis tools. Philips digital pathology solution is interoperable with AI applications and other tools that increase efficiency and facilitate interpretation. "Previously, anatomical pathology was not linked to computer technology; cases could not be studied or integrated into systems that allow for predictive diagnoses or for training artificial intelligence algorithms," Alonso said. "These algorithms can now assist in diagnosis, optimizing processes and speeding up the diagnostic workflow. The implementation process has been very smooth and straightforward, thanks to the Philips deployment team. In just one week, the system was stabilized and fully operational."

Dr. Saco, Anatomical Pathology Specialist at Hospital Clínic de Barcelona added, "The speed and greater efficiency of these systems have a daily impact on the quality of patient care, as they allow for a rapid and often more accurate diagnosis. As a result, the most optimal therapeutic measures for the patient can be initiated as soon as possible."

Accelerate the path from images to answers

Digital pathology has reshaped how pathology services operate across the C17 network. By connecting workflows, expertise, and data, the hospitals are improving efficiency and enabling faster, more confident decision-making.

Across the network, digital pathology enables:

- Faster access to cases and reduced turnaround times
- Improved collaboration across institutions
- Better use of subspecialty expertise
- More confident and timely clinical decisions

Together, these capabilities help accelerate the path from images to answers, supporting high-quality patient care across the region.

Discover how Philips can support your transition to digital pathology, help unlock the full value of your workflows, and enable pathologists to focus on what matters most.

Visit: www.philips.com/digitalpathology