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Digital pathology enhances clinical confidence in our findings by delivering the right result the first time.

Dr. Ivo van den Berghe, MD - director of surgical pathology at AZ Sint-Jan Bruges, Belgium

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### Who/where

AZ Sint-Jan, Bruges, Belgium

### Challenge

- Cancer projections are growing
- Demand for laboratory tests is increasing
- Workload per pathologist is rising

### Results<sup>2</sup>

- Fully digitized workflow speeds up processing of laboratory tests
- Easy to share information for multidisciplinary discussions
- Minimized risk of reporting on wrong patient samples
- Improved ergonomic conditions for laboratory staff

## Unlocking the full potential of digital pathology for primary diagnostics

With the global number of new cancer cases expected to rise by 70% over the next two decades<sup>1</sup>, pathology laboratories around the world are looking for ways to meet increased demand for their services. That's why digital pathology is gaining interest: it allows laboratories to work more efficiently and to diagnose tumors with more confidence<sup>2</sup>.

In 2016, the Anatomical Pathology laboratory of AZ Sint-Jan hospital in Bruges became the first laboratory in Belgium to digitize their workflow for primary diagnostics. The laboratory was awarded with the Agoria e-Health Award 2017 for best innovation project in patient care.



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We're connecting with laboratories worldwide to get a better understanding of rare tumors and how to treat them. ”

**Dr. Ivo van den Berghe, MD,**  
director of surgical pathology  
at AZ Sint-Jan Bruges

With 950 beds, AZ Sint-Jan is the largest hospital in the Belgian city of Bruges. In its anatomical pathology laboratory, four pathologists and two lab assistants handle around 17,500 biopsies and 80,000 samples each year. The laboratory has a track record of innovation: it was the first pathology lab in Belgium to introduce on-site robot screening of pap smears, and it was also the first pathology lab in the country to become ISO certified.

## Challenge

Demand for pathology services at AZ Sint-Jan in Bruges has grown in recent years, with referrals and requests becoming increasingly diverse and complex. To improve efficiency and quality of cancer diagnostics, the hospital's anatomical pathology laboratory decided to digitize its entire workflow. "I strongly believe that digital pathology is the future of pathology," says Dr. Ivo van den Berghe, director of surgical pathology at AZ Sint-Jan Bruges.

## Solution

"With digital pathology, we no longer view patient tissue samples through a microscope," Van den Berghe explains. "Samples now get scanned by a high-resolution scanner. This allows us to inspect images of samples on a computer. We also use digital tools to analyze images for more precise diagnostics."

Digitizing your workflow is not simply a question of upgrading your lab's hardware and IT, Van den Berghe adds. "It's also about rethinking your ways of working. That's why we were looking for a partner that understands our

changing environment, shares our vision, and offers an integrated solution. Philips could see the bigger picture from the start. Together, we have fundamentally changed the way our lab works."

## Results

"Until now, there has been no opportunity for objectivity; pathology was more of an art rather than a science," says Van den Berghe. "Digital pathology replaces the subjective nature of manual slide inspection under the microscope. It enhances clinical confidence in our findings by delivering the right result the first time."

"Through this digital transformation, we have also become more efficient," Van den Berghe continues. "In the old situation, a lab assistant would have to manually sort and archive 300 tissue samples each day. Now the samples are sorted and archived automatically. This saves our lab assistants a lot of time."

Another benefit of digital pathology is that it puts less physical strain on staff. "They no longer have to bend over to look through a microscope," says Van den Berghe. "There's far less risk of error, too. Each patient sample has a barcode that is unique to that patient. Reports are linked directly to the image of the sample, so that we can always trace a report back to the right patient."

"It has also become much easier to share information with clinicians from other disciplines. When we have a multidisciplinary consultation meeting about a patient, we can show the images of the patient's tissue sample on a screen, which speeds up decision-making. We no longer need to be in the same room either: colleagues can access the images from any place in the world."

## Looking forward

Remote consultancy creates opportunities for collaboration with other hospitals as well. Van den Berghe: "We are currently working with Philips to create a digital platform with other hospitals in Europe and the US. Together, we can get a better understanding of rare tumors and how to treat them. Ultimately, the biggest winner will be the patient."

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[www.philips.com/digitalpathology](http://www.philips.com/digitalpathology)



1. <http://www.who.int/mediacentre/factsheets/fs297/en/>
2. Clinical Laboratory International Dec 2017/ Jan 2018 issue, volume 41, case study page 28-30: [https://www.clinlabint.com/digital-editions/3d-issues/cli-dec2017-jan2018/?utm\\_sourc](https://www.clinlabint.com/digital-editions/3d-issues/cli-dec2017-jan2018/?utm_sourc)

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