PHILIPS
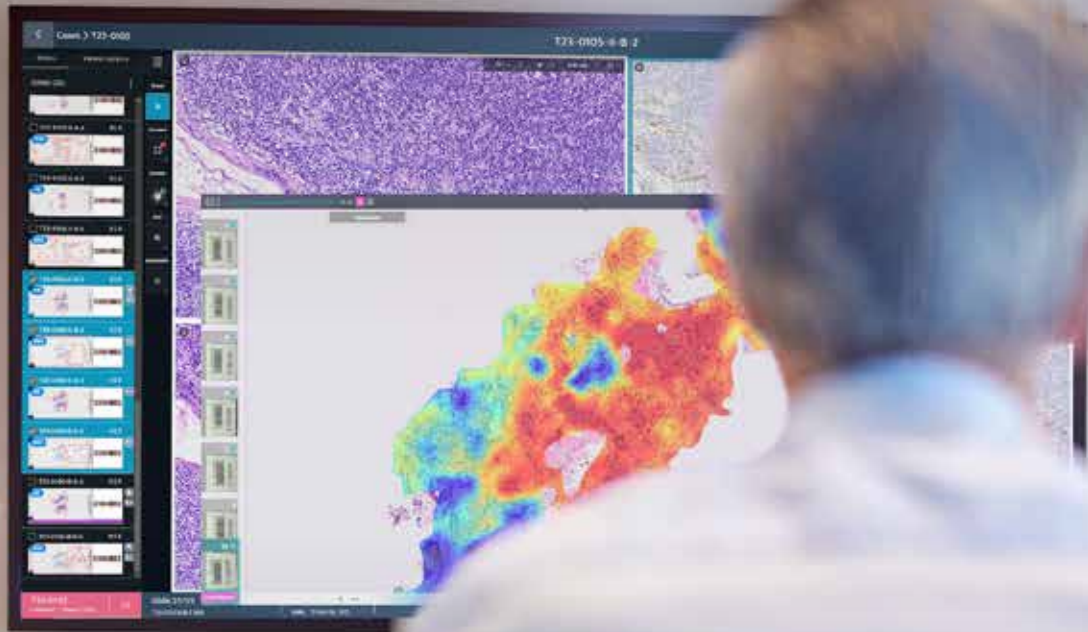
Philips IntelliSite Pathology Solution 6.0

Unlock a new era of efficiency and improved patient care

Pathology is rapidly changing and becoming considerably more demanding. Pathology labs face pressure on multiple fronts: resource shortages, workflow inefficiencies and a growing complexity of requests. Limited in time and resources while expected to accomplish more at lower costs, pathology departments are finding new ways to adapt and thrive. This is why pathology is transforming into a digital discipline. Digital pathology brings exciting new possibilities to enhance diagnostic and clinical decision-making so that labs can continue to meet the highest standards, and help drive healthcare transformation forward.

See more, quickly
The Philips digital scanner platform provides workflow with consistently high-quality images and fast, accurate scanning capabilities. Our digital pathology scanners can provide more detailed views than traditional pathology, including highlighting heliobacteria, which is harder to see under a microscope.

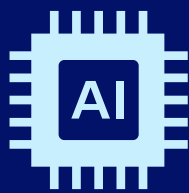# If you leave the microscope behind, would you ever go back?

" After implementing PIPS, the **quality of my diagnosis is better** than with a microscope."
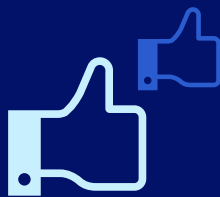
Results from a user survey

100%
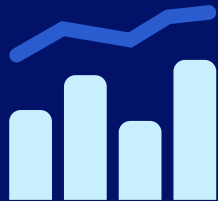**of pathologists** surveyed say that going digital helps reach diagnostic consensus[1]

" At Ohio State University, we have an end-to-end digital pathology system, **utilizing the Philips Digital Pathology platform. This journey started in 2017 and today our team averages more than 2,300 scans per day.** We are embarking on deploying **AI-based diagnostic** and decision support tools."

Dr. Anil Parwani, Professor of Pathology, Vice Chair and Director of Anatomical Pathology, Director of Pathology Informatics and Director of Digital Pathology, The Ohio State University Medical Center

78%
respondents felt their diagnoses improved with PIPS

22%
felt no change

Results from a user survey

Up to **37% increase in productivity**[2] and very high accuracy across multiple tissue types[3,4] with the use of the Ibex AI in use at 35 pathology labs and counting.

If you leave the microscope behind, would you ever go back?

Not many would. In a survey of 52 pathologists,

100% of them said that they would never go back to non-digital[5]

Enhanced quality and patient care with accurate, precise diagnostics

Using the Philips IntelliSite Pathology Solution (PIPS) of digital pathology slide scanners, Image Management System (IMS) and a comprehensive set of software tools and capabilities lets you speed workflow while also easily connecting with supporting sub-specialists around the world on the quest for quick and confident diagnostic decisions that support confident care.

Gain new insights
Real-time collaboration with IMS software and algorithms is designed to aid, streamline and maximize diagnostic confidence.

Unify patient data to break down barriers
A streamlined workflow with bidirectional laboratory information system (LIS) integration that makes use of an updated case viewer enables multidisciplinary patient data review and care pathway selection. Pathologists can tag cases and slides for quick access during tumor boards or for future education.

Efficient collaboration and readily accessible, clinically relevant data across locations and specialties enable pathologists to identify areas of discordance, focus on resolution and prioritize more complex cases. Remote viewing is compatible with outside systems, so pathologists can easily connect with supporting subspecialists around the world.

An integrated digital pathology system also diminishes the potential for human errors related to matching slides. Patient data is always accessible via barcode, without having to check glass labels.

Add the power of AI
With Philips digital pathology, healthcare providers can unlock the benefits of AI. Philips PIPS is designed as an open platform that can safely and securely share imaging and other relevant data to provide interoperability with third-party AI applications.[6]

In fact, close to 40 pathology labs, which generates objective, reproducible results, increases diagnostic confidence and enables productivity and efficiency improvements.*

Management System Worklist

AI Vendor view

Workflows that improve turnaround time and staff satisfaction

Improve turnaround time, productivity and staff satisfaction

Achieve digital pathology scanner integration with vendor-agnostic interoperability and open AI options for efficient, optimized workflows. Philips digital pathology gives you the tools you need to enhance efficiency and reduce turnaround time.

Mitigate the pathologist shortage with increased productivity

After slides have been scanned, our IMS automatically organizes cases in folders at the patient level, based on LIS interoperability. You can easily access and organize your workload, orient yourself with the clinically relevant case details, and review each image with a rich set of tools – including convenient side-by-side viewing options.

Now there's no need to go back and forth between microscopes, and pathologists have the ability to leave detailed tissue annotations.

Free yourself and your team, saving time

Scanners that are specifically tailored to the demands of your lab allow you to optimize productivity in new ways. Fully automated load-and-walk-away scanning offers continuous operation, freeing you and your team to focus on other tasks, with no supervision or setting adjustments needed.

Digital pathology can save time for pathologists in matching slides and paperwork to cases, transporting cases, correcting errors, retrieving prior cases, organizing cases, querying for cases, automatic counter markers and searching for specific cases.[9] Reduction of turnaround times for consultation, revision and referrals through collaboration options also helps simplify preparation for multidisciplinary team (MDT) discussions.

25% increase in productivity
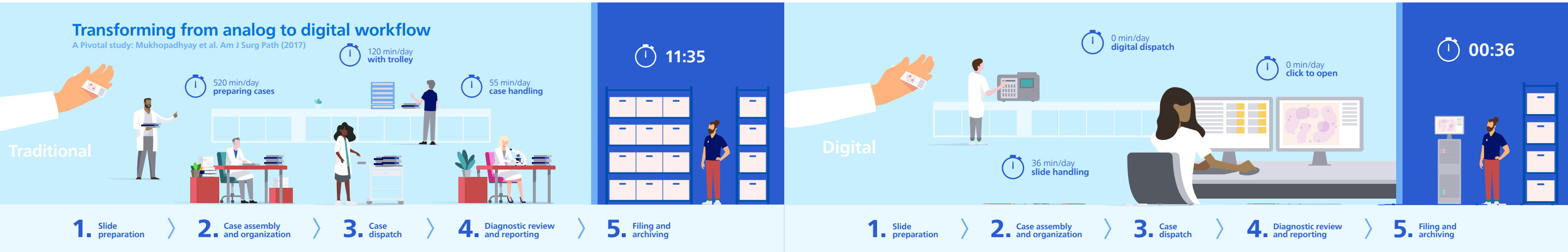by labs transitioning to Philips digital pathology[7]

96%
experienced **increased efficiency**[8]

19 hours per day can be saved
on case logistics and reading[8]

99.5% first-time-right
rate demonstrated by the scanners in the Philips portfolio, which have been designed for high throughput and enabling laboratory efficiency and fast turnarounds[8]

"Transitioning our entire workflow to digital processes demonstrates our commitment to ensuring our patients and clinical colleagues receive the **fastest and best-informed diagnoses** possible."

Dr. Alexi Baidoshvili Pathologist, LabPON, the Netherlands

Transforming from analog to digital workflow
A Pivotal study: Mukhopadhyay et al. Am J Surg Path (2017)

Traditional — 520 min/day preparing cases · 120 min/day with trolley · 55 min/day case handling · ⏱ 11:35

1. Slide preparation 2. Case assembly and organization 3. Case dispatch 4. Diagnostic review and reporting 5. Filing and archiving

Digital — 36 min/day slide handling · 0 min/day digital dispatch · 0 min/day click to open · ⏱ 00:36

1. Slide preparation 2. Case assembly and organization 3. Case dispatch 4. Diagnostic review and reporting 5. Filing and archiving

Results are specific to the institution where they were obtained and may not reflect the results achievable at other institutions.

Philips Digital Pathology Solution

Pathology Scanner Second Generation
- High image quality, maximizing diagnostic confidence
- High throughput to enable laboratory efficiency and fast turnarounds
- Load and walk-away scanning that minimizes operator interaction time
- Robust and reliable for high availability and uptime
- Efficient total cost of ownership per digitized slide, making digital pathology attractive for labs of all sizes
- 3D-ready technology hardware prepared for multi-layer scanning
- Full Scan Mode with fixed region of interest scanning

SG60   SG300

Image Management System (IMS) Application Server and Storage Software
- Cost-efficient deployment, tailored scalability
- Versatile integration
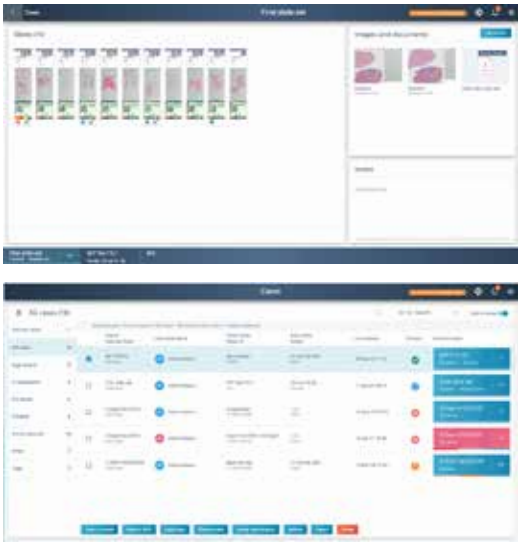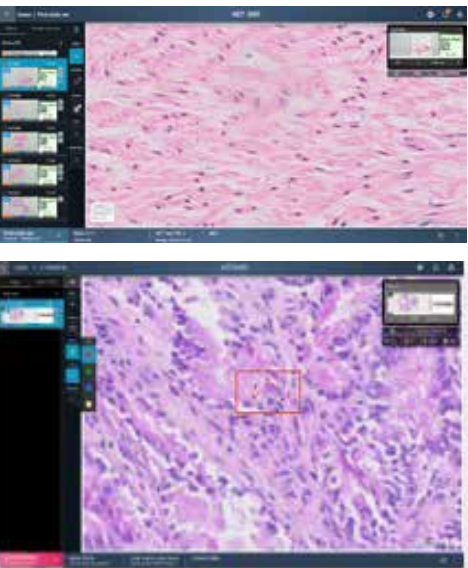- Virtual deployments for enhanced availability

Image Management System Viewer
- Enhanced user experience, streamlined digital workflow
- Smart case load management
- Automatic Counter Markers enabling day-to-day clinical workflow
- Real-time collaboration and case sharing
- Access to AI results[6]
- Worklist prioritization using AI findings

Automatic Counter Marking

Clinical Display (for US only)[11]
- High-quality 27" monitor validated with the IVD solution (for US only)[11]

Designed around the needs of your organization
We collaborate with you to analyze your workflow and propose a tailored end-to-end solution that includes scanners, software, IT configuration and automatic information exchange with your LIS[10] through standards of communication. Philips IntelliSite Pathology Solution is scalable and can grow as your lab grows.

IVD cleared globally
Philips IntelliSite Pathology Solution can be used for in vitro diagnostic purposes. The system can aid pathologists in reviewing and interpreting digital images of surgical pathology slides prepared from formalin-fixed paraffin embedded (FFPE) tissue. The Philips IntelliSite Pathology Solution has obtained market access clearance as IVD for primary diagnosis in approx. 50 countries, such as EEA (European Economic Area), USA, Canada, Japan, South Korea, and other countries in Asia, Middle East and South America. Specific conditions apply to the USA market.[11]

Performance today, with scalability for the future

Connect your teams with a scalable solution, via easy sharing of patient-centric histology data across organizations and between sites, and an open platform that enables new interoperability options.

Your solution for today and tomorrow
Using Philips digital pathology aids productivity because it eliminates time-consuming administrative tasks, reduces costs and enhances lab performance. Philips is helping pathology practices transform and scale for a smooth transition from analog to digital pathology workflows, as well as embrace the future with an open platform with broader hospital and AI Integration options.[6]

The Philips digital pathology solution (IMS software) works with your existing software and what you might choose in the future, so you don't have vendor lock-in for AI[6] or scanners. DICOM allows efficient access to image data as well as associated metadata. This is all to enhance efficiency and deliver insightful reports.

iSyntax format for pathology images
The Pathology SDK format stores pathology whole slide images (WSI) with wavelet transformation technology that allows users to quickly zoom and pan through WSI images. Encoding and decoding can be processed in real time, and in a 25% smaller file size than other formats requiring redundant storage of lower-magnification images. Unlike formats with limited dynamic range, iSyntax pathology format allows for medical image quality with arbitrarily high bit-depths, an unlimited number of channels, lossless and lossy compression and progressive decompression in terms of resolution as well as quality.

1st vendor in the world
to release a digital pathology system - in vitro diagnostic (IVD)-labeled digital pathology system (both CE-IVD in 2013 and an FDA De Novo clearance in 2017).

"Digital transformation has proven successful for pathologists, allowing easier organization and more efficient workflows. New functionalities like measurements and multiple-slide alignment provide **better collaboration across the care team** and help improve the path to diagnosis."

Dr. Julien Adam, Head of the Pathology Department, Saint-Joseph Hospital

Over **3500** pathologists around the world rely on Philips digital pathology

30+ labs have upgraded to full digital operations with Philips

38 million+ scanned slides with Philips digital pathology

Results are specific to the institution where they were obtained and may not reflect the results achievable at other institutions.
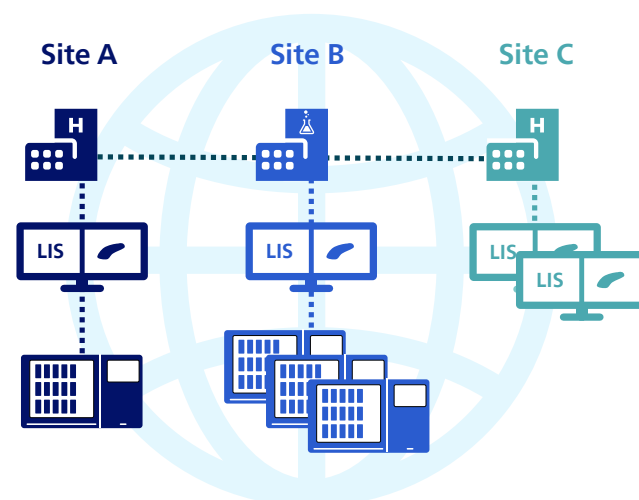
Stringent security

We are committed to meeting all stringent security requirements (including certification from the U.S. Department of Defense) at all times.[12] Philips systems also provide bidirectional LIS integration, resulting in integrated security and privacy controls for added confidence in specimen tracking, data integrity and digital accountability.

Philips connects teams with best-in-class hardware and software that enable easy sharing of patient-centric histology data across organizations and between sites, and integrates with new interoperability options quickly and efficiently.

System interoperability

Philips can offer comprehensive interoperability options with your Laboratory Information System (LIS), including bi-directional and uni-directional interoperability. For example, contextual launch of the IMS Viewer from the LIS worklist or synchronization of case-related clinical data between systems can be realized.

Next to this, import of proprietary image formats from third-party scanners, such as NDPI, SVS, and MRXS are supported[13]. Screenshots and whole slide images can be exported in diverse formats. Select image analysis algorithms[14] from third-party vendors are available directly within the IMS Viewer and does not require export to another platform.

Site A **Site B** **Site C**

DICOM® file format for digital pathology

Digital Imaging and Communications in Medicine (DICOM) is the international standard for medical images and related patient information. Originally developed for radiology, DICOM was recently adopted for other medical domains - including digital pathology - to promote standardization and interoperability between systems.

To ensure an open ecosystem for digital pathology without compromising quality, safety, and digital pathology capabilities, Philips will continue to improve and adapt the DICOM export as the standard emerges. The DICOM standard will allow integration of digital pathology scanners with viewers, AI applications, PACS and VNAs from different vendors.
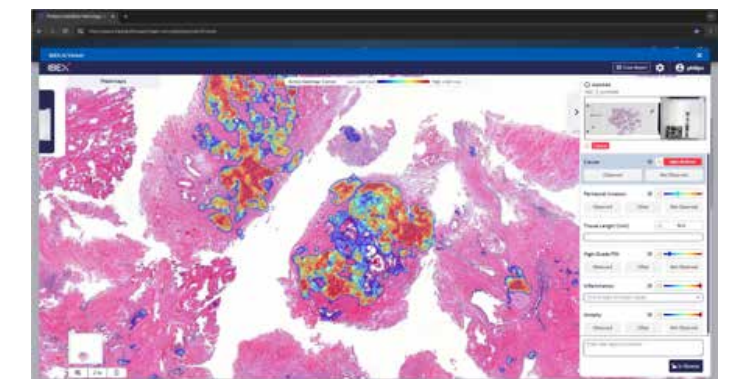
Committed to an open platform

Philips has supported and will continue to support an open platform with a public Software Development Kit (SDK)[15] and a iSyntax File Viewer. Depending on your needs and existing systems, this allows software developers and research scientists to tap into the full potential of image data stored in the iSyntax format. Going forward, Philips intends to support both DICOM and iSyntax file formats, for the Philips IntelliSite Pathology Solution. This ensures a versatile solution to fulfill current and future pathology requirements so that interoperability will not be a concern for existing and new users. Cross-modality collaboration between pathology and other imaging modalities empowers integrated diagnostics and decision-making.

Scalability for efficiency

PIPS allows you to scale up and scale out, to support growing case volumes. Multi-site portal implementation and centralized web-based deployment with automated storage management is both cost-efficient and easily adjustable. Having the right amount of storage either on-premise or in the cloud means you are always ready to scale.

The digital pathology partner to offer an open AI platform strategy

Philips is the only partner that offers an open AI platform strategy[6], allowing interoperability for AI solutions of choice today, and in the future. Access AI through partnerships by an open platform.

Launch Ibex within IMS application window

Grow as your lab grows

Designed around the need of your organization We collaborate with you to analyze your workflow and propose a tailored end-to-end solution that includes scanners, software, IT configuration and automatic information exchange with your LIS through standards of communication. Philips IntelliSite Pathology Solution is scalable, and can grow as your lab grows

Start your smooth transition to digital workflow

More than software and equipment
Going digital isn't just a simple software and equipment upgrade. That's why we offer tried-and-true expertise, paired with custom-tailored plans and ongoing support – so you can make the most of your transition, avoid critical pitfalls and tap into the full power of the digital revolution. We support your smooth transformation to digital workflow with tailored planning, flexible implementation, valuable training and support.

Reaching digital excellence
Philips is your partner before, during, and after your digital transformation. Our experts have experience in workflow consultation, change management, training and transition support. Partner with us as experienced and trusted partner on the path to digital pathology excellence. Transform and scale your pathology practice for a smooth transition from analog to digital pathology workflows, and embrace the future with an open platform, and with broader hospital and AI Integration options.

Proven **6-month production-ready** implementation window

1-month user migration period so pathologists can acclimate quickly, with minimal disruption

1 week or less for most lab staff to feel accustomed to Philips digital pathology systems, according to a recent survey at a major digital pathology lab

Expert consultation and solution mapping
If you're considering evolving to digital, we'll work with you to see which workflow and implementation will best suit your laboratory's unique needs. We understand pathology operations like no other – but equally important are your specific goals. We take both into account to map the best way forward, including suggested process improvement measures and projected return on investment (ROI). Our integration services connect the dots between PIPS and you with flexible, customizable tools integrated with your EMR, pathology, LIMS and PACS, making it possible to create intuitive, automated workflows.

Remote consultation as an external service
Expert workflow consultation covers all aspects of digital pathology systems from IT to workflow. To support digital transformation, Philips offers clinical professional services with a proven approach to drive change that is collaborative, measurable and sustainable.

Convenient financing
Philips Medical Capital is your one-stop shop for financial solutions. From traditional capital expenditures to customized managed services, you can enhance the value of your pathology investment and manage both your technology and your financing with ease.

Minimally disruptive implementation
Comprehensive planning and training help ensure a smooth, efficient transition once you're ready to make a digital upgrade.

Continuous re-optimization
Even once your institution is up and running, we're there to ensure a continually smooth experience. Expert workflow consultation is always available and covers all aspects of your digital pathology systems – from IT to workflow to LIS integration – so you'll never have to go it alone, regardless of what issues you're facing.

Maximize the value of your investment
The benefits of more convenient image scanning and viewing don't have to come with sticker shock.

Most Philips digital pathology customers see a return on investment (ROI) in just two years[9]. Reliable hardware and software from Philips with minimal downtime, helps enable a more productive throughput, so your lab can continue to reap the benefits of efficient total cost of ownership. To get started, a variety of financing options are available, beyond traditional capital purchase. Philips Capital offers a range of financial models to choose from, so you can benefit from improved diagnostic accuracy and optimized cashflow predictability. Our experts are ready to provide a custom consultation for your business and can even help calculate your projected ROI with Philips systems. With Philips, you can maximize the value of your investment

The future is here

Transform and scale your practice for an optimal transition from analog to digital pathology workflows. Embrace the future of digital pathology with an experienced, trusted partner and an open platform that's enterprise-wide with options for AI integration.

We're ready when you are
When you're ready to make the care-changing transformation towards digital pathology excellence, Philips is ready to serve as your trusted partner. We can help you connect radiology, pathology, clinical informatics, cardiology informatics, data management and interoperability solutions. This provides a cornerstone of precise, efficient diagnosis and personalized care pathways for your patients.

A future that empowers
By unlocking the benefits of digital pathology, we empower you to overcome workflow obstacles and delays to fast diagnoses, enhanced clinical insights and real-time collaboration to elevate patient care.

PIPS is not available for sale in all countries. Please contact your sales representative to ascertain availability in your country.

1. Sarfati, D., Gurney, J. Preventing cancer: the only way forward. The Lancet, August 2022, 400(10352):540-541. DOI: 10.1016/S0140-6736(22)01430-1

2. Information of Ibex AI. Raoux et al. Modern Pathology (2021) 34 (suppl 2): 598-599

3. Information of Ibex AI. Sandbank et al., npj Breast Cancer, December 2022

4. Information of Ibex AI. Sandbank et al, Modern Pathology 2022, 35, 513-514

5. Survey of 52 pathologists, lab managers and lab technicians in Europe, 2018.

6. PIPS enables iSyntax files, and with the Software Development Kit (SDK) third party companies can use this for AI capabilities

7. Report of the Second Phase of the Independent Review of NHS Pathology Services in England – An Independent Review for the Department of Health, Chaired by Lord Carter of Coles, 2008

8. Real-life results reported in A. Baidoshvili et al. Evaluating the benefits of digital pathology implementation: time savings in laboratory logistics. Histopathology (2018)

9. Ho J., et al. Can Digital Pathology Result In Cost Savings? A Financial Projection for Digital Pathology Implementation At A Large Integrated Health Care Organization. Journal of Pathology Informatics, August 2014, 1:33. DOI: 10.4103/2153-3539.139714.

10. LIS interoperability is a purchase option available for selected LIS vendors. Comprehensive solution design is a purchase service option.

11. The expansion of remote use of Philips IntelliSite Pathology Solution in the USA are under specific conditions and device specifications. The type of monitors is only allowed due to emergency situations. The limitations and warnings specified in device labeling are still applicable to this situation.

12. https://www.usa.philips.com/healthcare/sites/pathology/release-press/20160310-Philips-meets-stringent-US-government-security-requirements-for-pathology-medical-data

13. Images that are imported from third party scanners are not for diagnostic use.

14. Visiopharm AS is the legal manufacturer of the breast IHC applications (HER2, ER, PR, Ki67). The applications are IVD for EEA and India, and Research Use Only for the United States

15. The Software Development Kit (SDK) and File Viewer are not intended for diagnostic, monitoring or therapeutic purposes or in any other manner for regular medical practice.

Contextual launch of Ibex AI in PIPS is RUO in the USA

PHILIPS

Talk with your Philips representative or visit
www.philips.com/digitalpathology