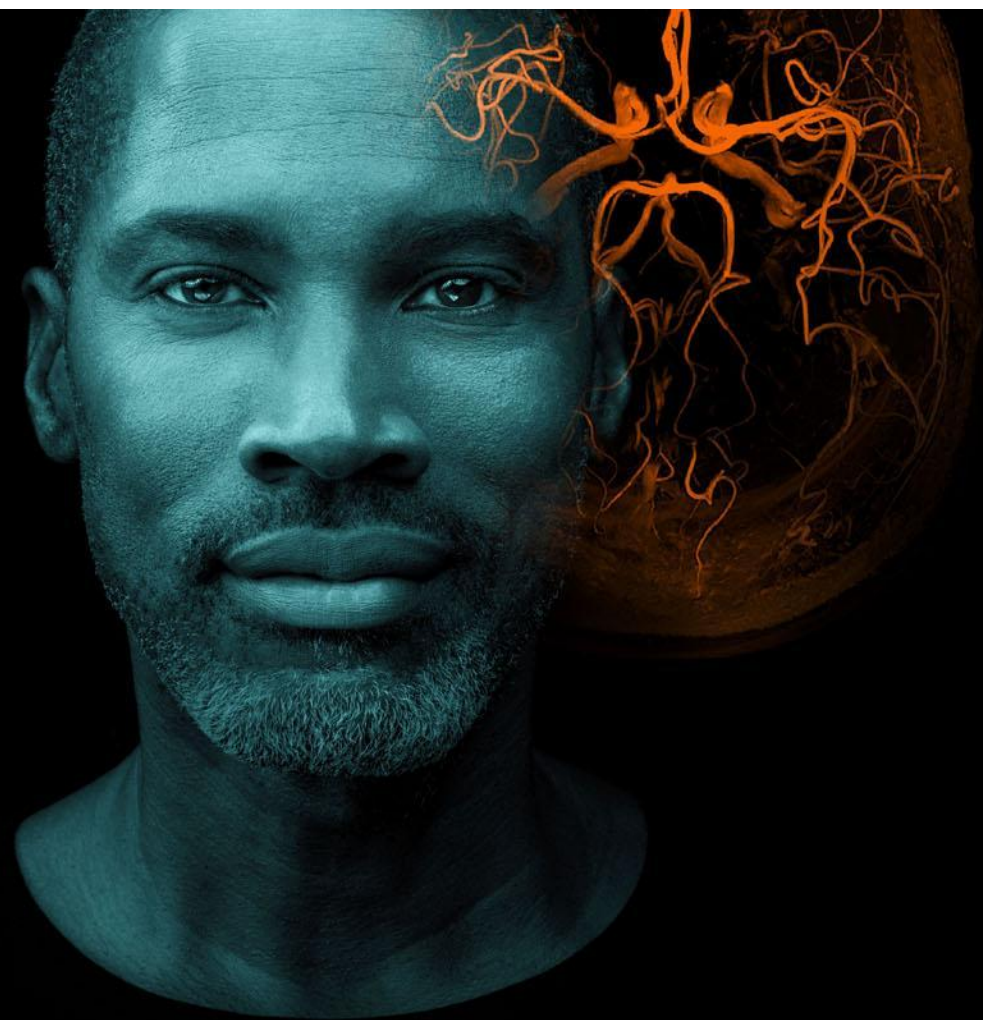
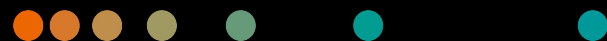
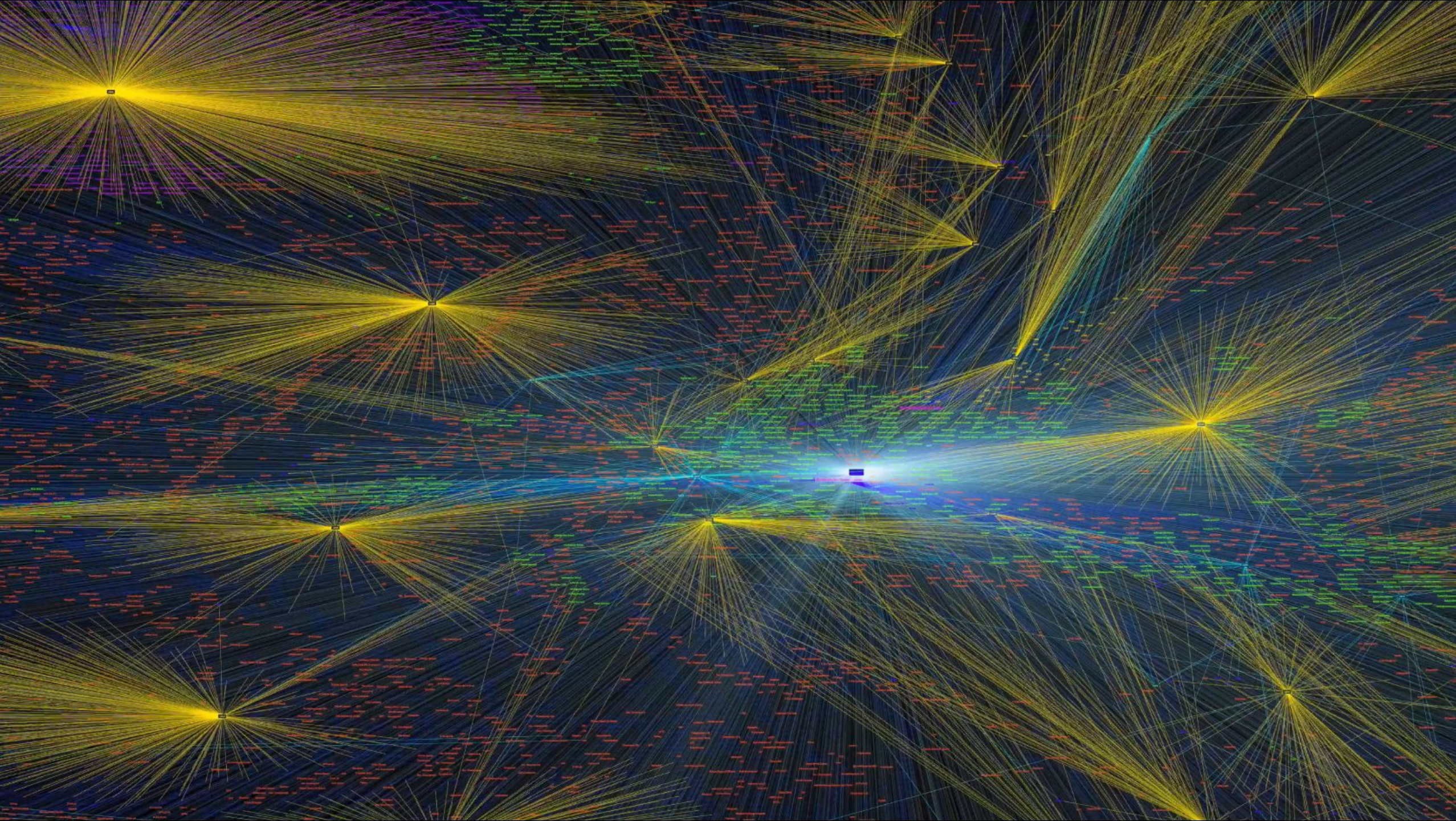


Leveraging All Benefits of Digital Transformation in Pathology

René Kittl
Digital Solution Expert for Data Management & Digital Pathology







Answering trends



More samples coming in each year, with less pathologists



No flexibility around working environment (home office, remote work, second opinion)



Expanding precision medicine



Increasing amounts of data, and complexities of data



Siloed Data within departments that is crucial to the Diagnoses



Placing the patient in the center

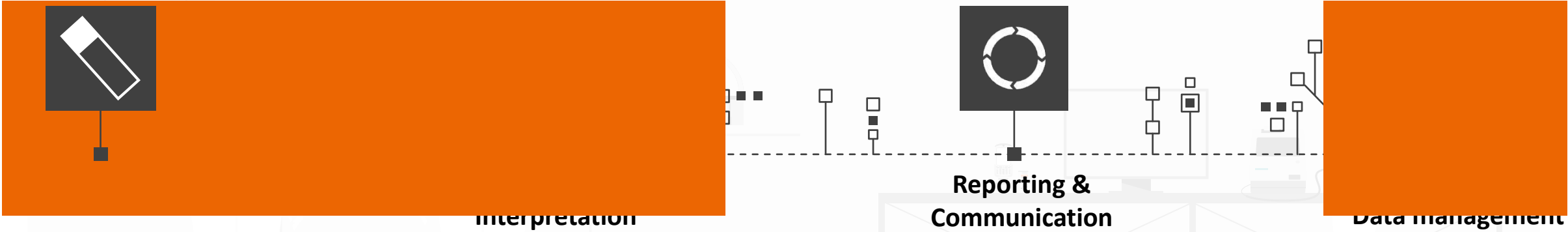
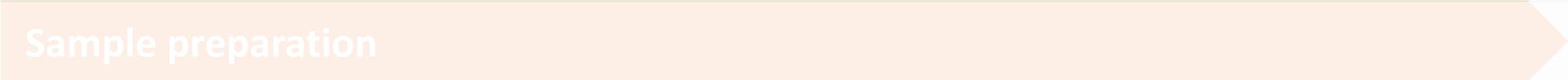


Long waiting times for clinical experts to weigh in / TAT



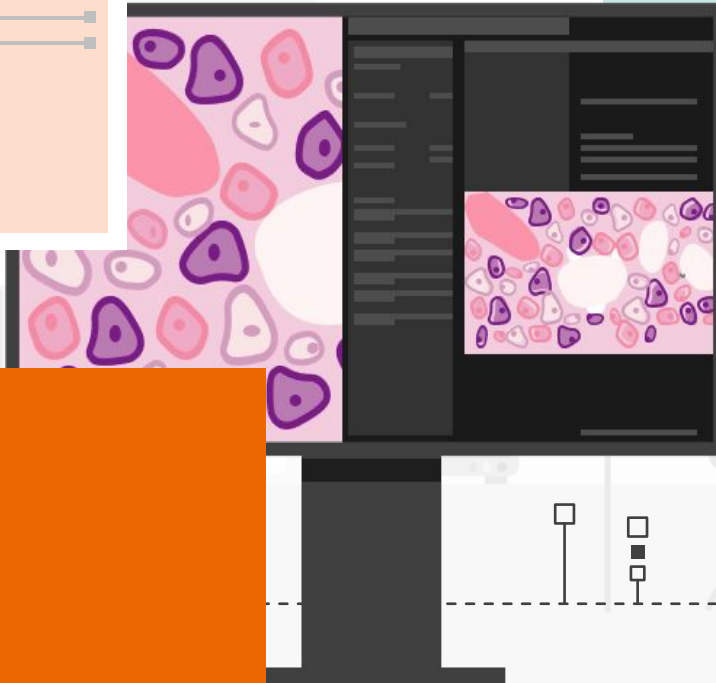
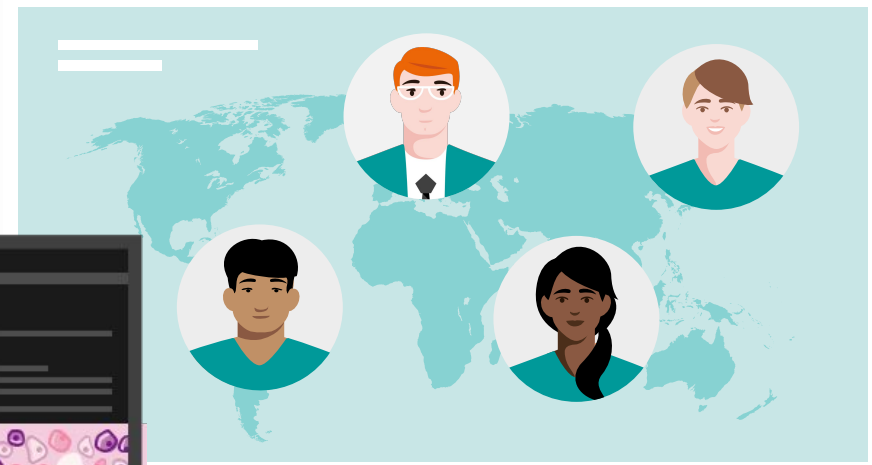
Repetitive tasks that dig into routine

Curating workflows with actionable data



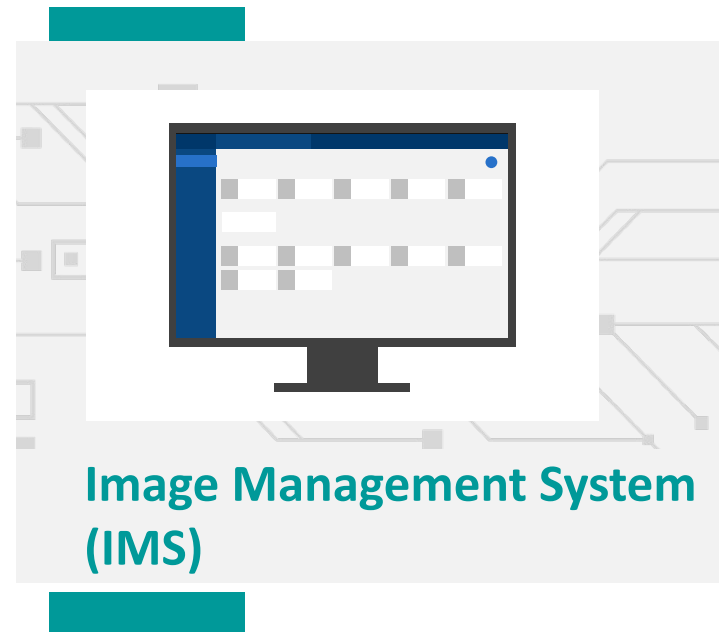
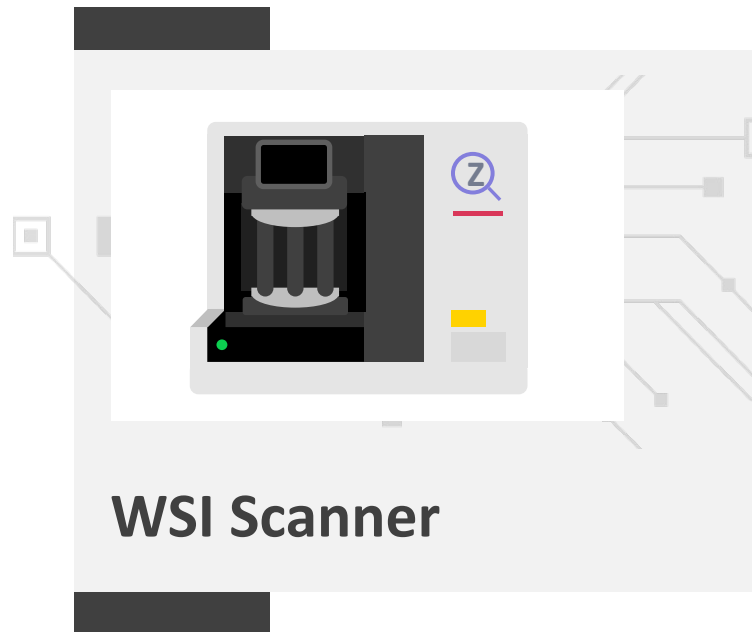
**Smart Imaging
value chain**

Working digital goes beyond digitalizing an image, it's about leveraging the full benefits of digital transformation



- Degree of digitalization
- Degree of automatization
- Degree of consolidation
- Degree of automated decision making

What is required



Interdisciplinary and patient centric view on patient data

SIEMENS Healthineers Lung CA_MM 1/1/1947 M 01 MD Mr. Demo

Patient Jacket

Filter: No filter applied

- 5/27/2024 7:37 PM SR | 1
- Lung Biopsy Histopathology 1/9/2024 8:29 AM 1 | 1
- RX Thorax 11/22/2023 12:00 AM 2 | 2
- RX Thorax 12/1/2022 12:00 AM 2 | 2
- Histo 10/26/2022 7:59 AM 1 | 1
- CT Thorax_AIRC results 7/21/2021 9:47 AM 27 | 1,556
- 1 Topogram 0.6 T20f 7/21/2011 9:49 AM CT | 1
- 2 Topogram 0.6 T20f 7/21/2011 9:49 AM CT | 1
- 5 Thorax 3.0 I31f 3 7/21/2011 9:52 AM CT | 260
- 5 AI-Rad Companion Pu... 10/1/2022 1:42 PM CT | 8

Imaging: Topogram (100 mm scale), Lung Biopsy Histopathology (100 pixel scale), CT Thorax_AIRC results (100 pixel scale).

Endoscopy: Document Navigator showing a video frame with a 100 pixel scale.

Clinical Data:

Family Physicians Clinic
123 Main St
Anytown, Prov, Z12 1Z1
987-321-6540

Age: 62 yr Male Name: XXXXXXXX, XXXX
Ht: 186 cm Race: Caucasian ID#: 333222111
Wt: 84 kg BMI: 24.3 kg/m² Date of birth: 1949-Dec-31
Nonsmoker - pack-yr: 0 Date of test: 14:20, 2012-Jan-02
Reason for test: Chronic cough

Spirometry	Pre-Bronchodilator			Post-Bronchodilator			%Chg
	Best	LLN	%Ref	Best	%Ref	Change	
FVC (L)	4.65	3.86	91%	5.01	94%	360 mL	8%
FEV ₁ (L)	3.26	2.91	84%	4.04	100%	780 mL	24%
FEV ₁ /FVC	0.70	0.64		0.81			
PEF (L/s)	10.2			14.3			
FET (s)	15.3			14.8			
Test quality	B			A			

Reference values: Quanjer 2012 [Caucasian]

Technologist comments:
3 acceptable blows with 2 repeatable for both Pre- and Post- tests.
No bronchodilators taken in previous 24 hrs.

Outcomes through digital pathology

Baidoshvili A. et al. (2018)

Evaluating the benefits of digital pathology implementation: time savings in laboratory logistics.

- >19 working hours were saved on a typical day by working digitally, with the highest savings in routine diagnosis and multidisciplinary meeting workflows.
- Saving ~19 h/day translates into 2.63 fte (fulltime-equivalent) laboratory staff (36-h working week), corresponding to €120,000/year



Retamero J. A. et al. (2019)

Complete Digital Pathology for Routine Histopathology Diagnosis in a Multicenter Hospital Network

- Average increase of pathologist sign out rate of 21% since the implementation of full digital pathology for primary diagnosis
- Constant availability of digitized images to anyone, anywhere within the network
- Rule-based data storage management and viewing options



Thank you