

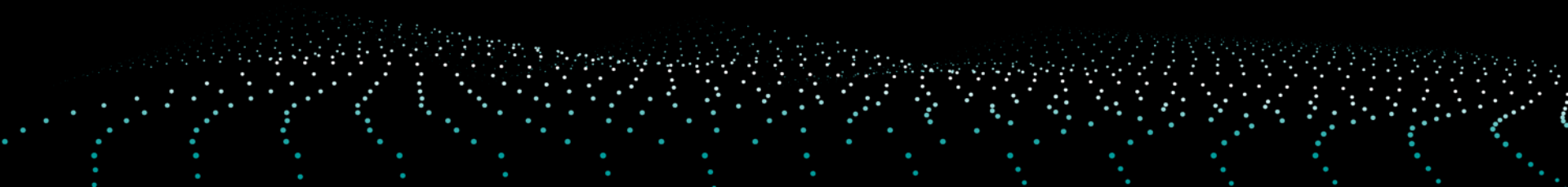


# ContextVision

Company presentation

Fredrik Palm, CEO  
June 12, 2020

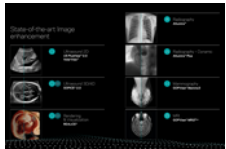
@ Sparebank 1 Markets Webinar



# ContextVision – a medical technology software company specializing in image analysis and artificial intelligence, for image-based applications.

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## BUSINESS AREAS



### Medical Imaging

Globally established market leaders



### Digital Pathology

Soon to enter the market, huge potential

# ContextVision – brief facts

- ~50 employees (50% within R&D)
- World-leading product development based on machine learning
- Over 35 years' experience within image processing and image analysis for medical applications
- Over 300,000 system installations: worldwide



# We know what we do...











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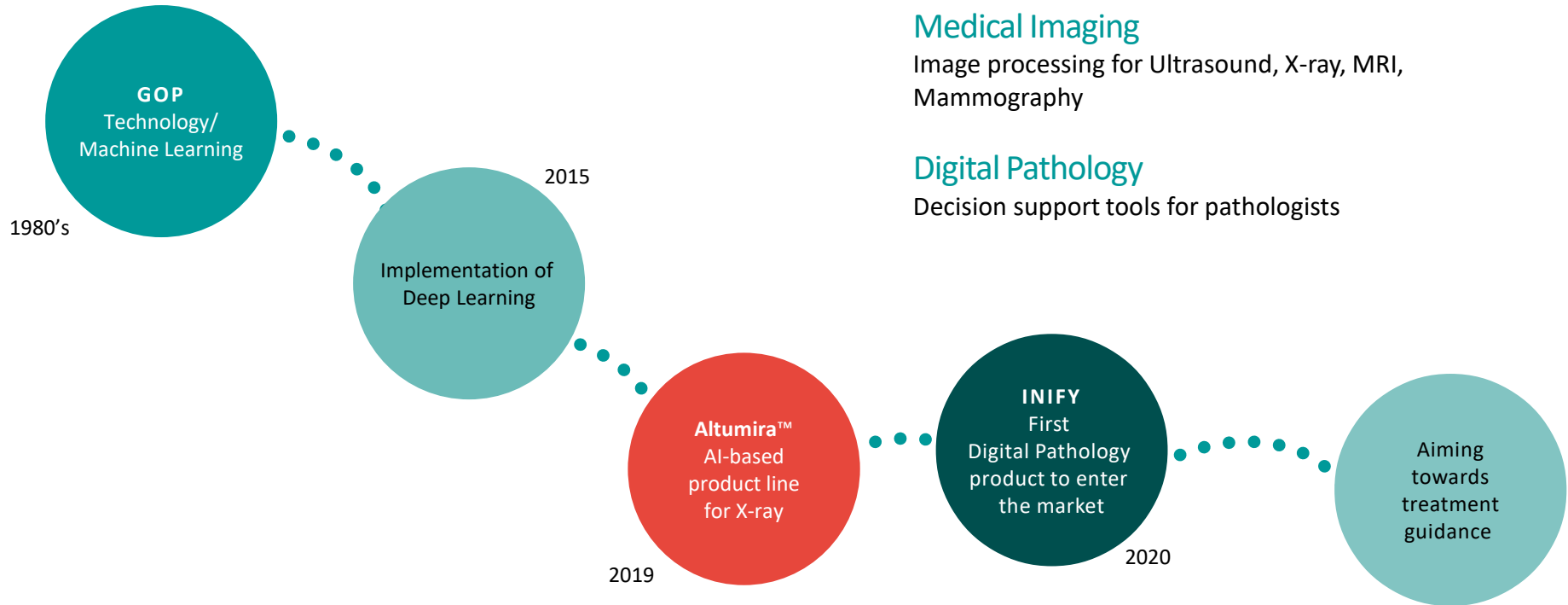
## Results

Show  entries

Search:

Position	User	Team	Date	Score (Cohen Kappa)	Comment	Paper
1	 jaylee	Lunit Inc	July 31, 2017, midnight	0.8993		
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3	 ziz0414	HMS-MGH-CCDS	April 6, 2017, midnight	0.8806	Workshop	
4	 farhad	VCA-TUe	March 30, 2017, midnight	0.8729	Workshoo	

# We apply technology with focus on application



## APPLICATION AREAS

### Medical Imaging

Image processing for Ultrasound, X-ray, MRI, Mammography

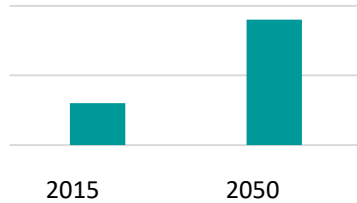
### Digital Pathology

Decision support tools for pathologists

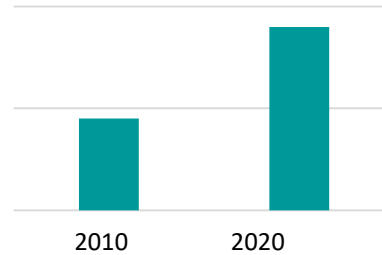
# Healthcare challenges



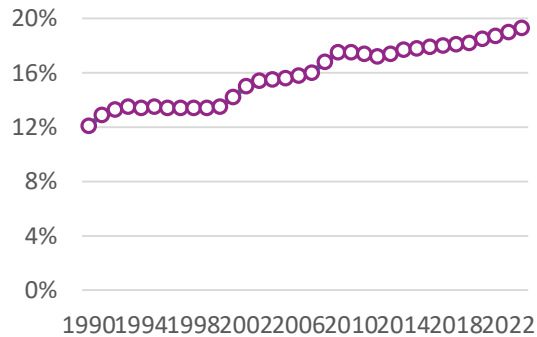
Increase in the elderly population



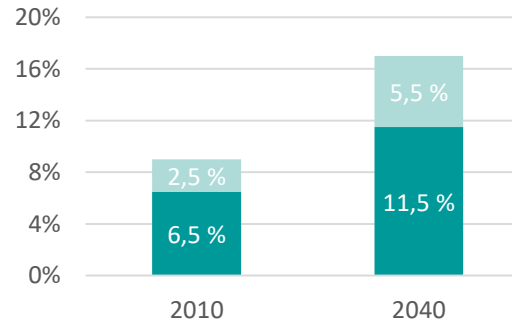
Increased incidence of cancer



Healthcare cost US, share of GDP



Healthcare cost EU, share of GDP



Source:

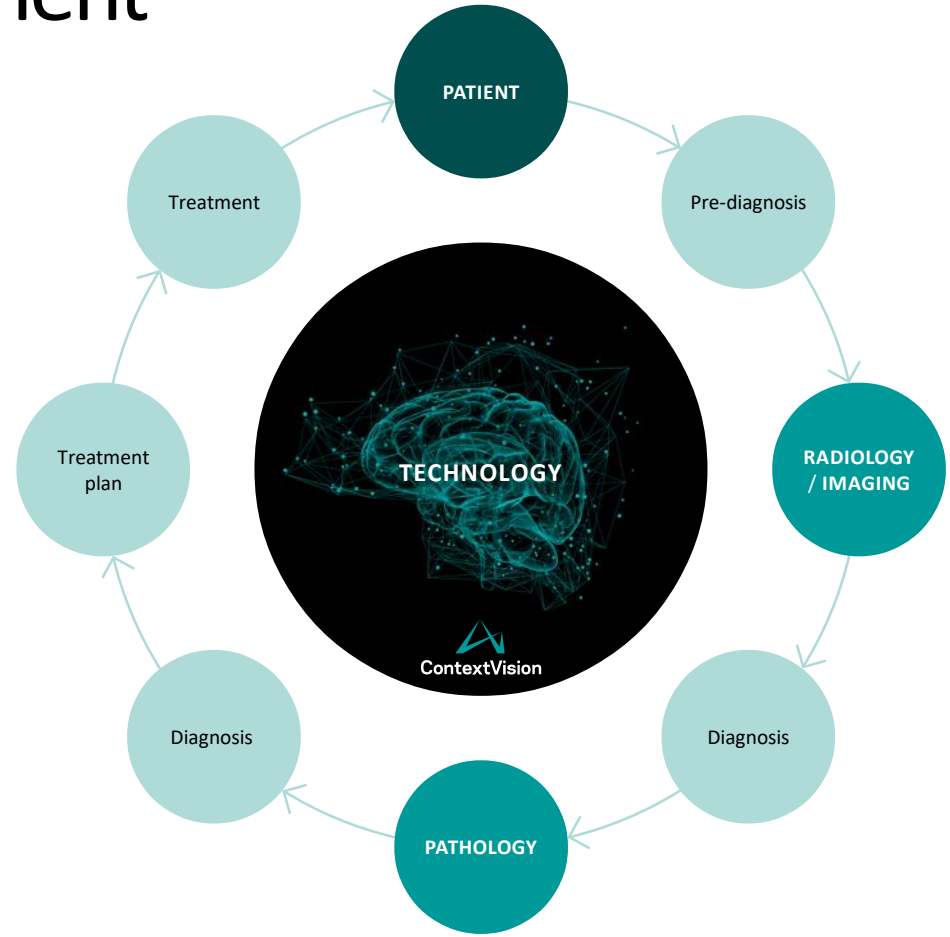
<https://www.nia.nih.gov/research/publication/global-health-and-aging/assessing-costs-aging-and-health-care>

Sources:

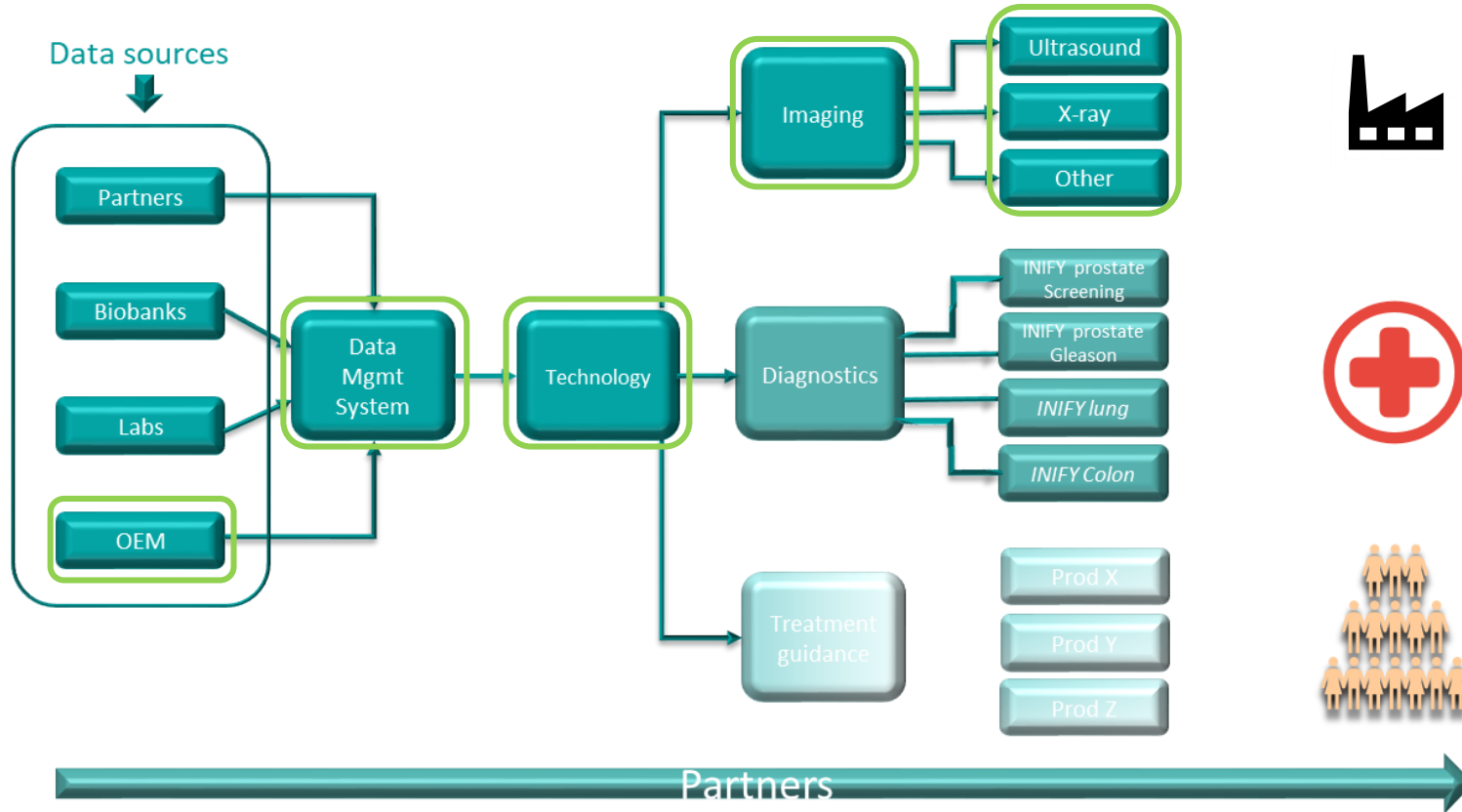
Cap Gemini (EU) and Sisko A.M. et al. (2014), "National health expenditure projections, 2013–23: faster growth expected with expanded coverage and improving economy"

# Aiming towards treatment guidance

- Improve workflow
- Improve precision
- Use follow up data
- Use outcome data



# Process of excellence – industrial grade





# Medical Imaging

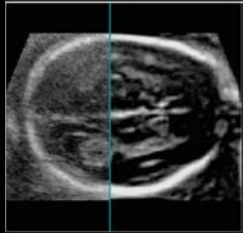


# Image enhancement

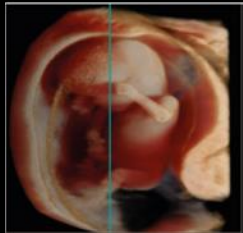
Our state-of-the-art software portfolio



Ultrasound 2D  
US PlusView™ 2.0  
VolarView™



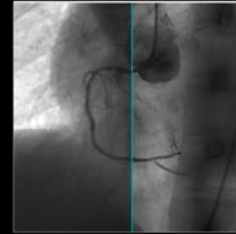
Ultrasound 3D/4D  
GOPiCE® 2.0



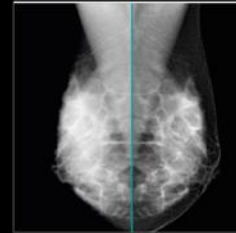
Ultrasound 3D/4D  
& Visualization  
REALiCE®



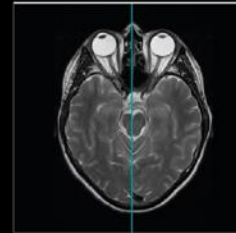
Radiography  
Altumira™



Radiography - Dynamic  
Altumira™ Plus



Mammography  
GOPView® Mammo3



MRI  
GOPView® MRI2<sup>Plus</sup>

# Altumira™ – the new generation of AI-based X-ray image enhancement

Gold standard image quality



Robustness between patients and varying exposure conditions



Processed with Altumira

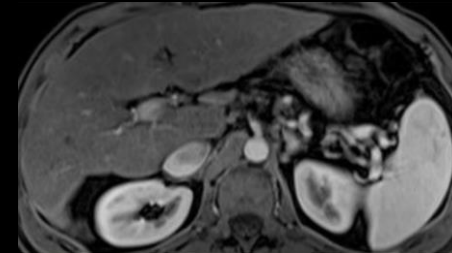


Standard processing

# Rivent™ – the 7th generation of image enhancement for ultrasound



Processed Ultrasound - Abdomen

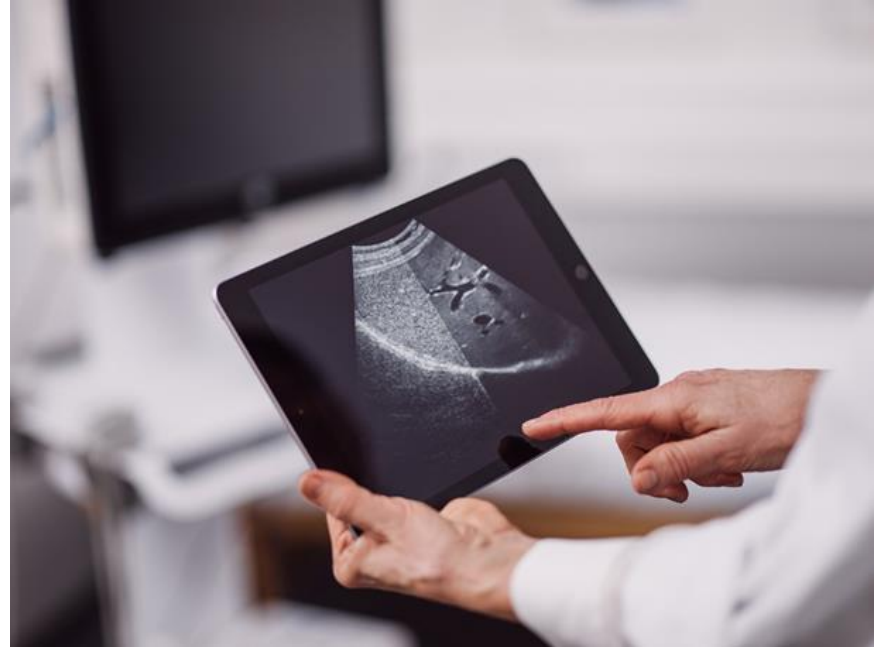


MRI- Abdomen

Disclaimer – the image examples is only an sharpness illustration of the images. It does not reflect clinical information

# Medical Imaging – summary

- Global market leader within medical imaging for ultrasound, X-ray, MRI and mammography
- Revenues are dominated by long-term license fees and driven by customers' production rates and product life cycles
- >300,000 systems worldwide are equipped with ContextVision's software
- Combining 35 years of experience in image processing with the latest AI technology, to continuously deliver cutting-edge products to the market



# Digital Pathology

# A young, rapidly growing market

Digital pathology is a rapidly growing market driven by the shortage of pathologists worldwide. Going digital enables use of decision support tools that make pathologists' work more efficient.

## DIGITAL PATHOLOGY

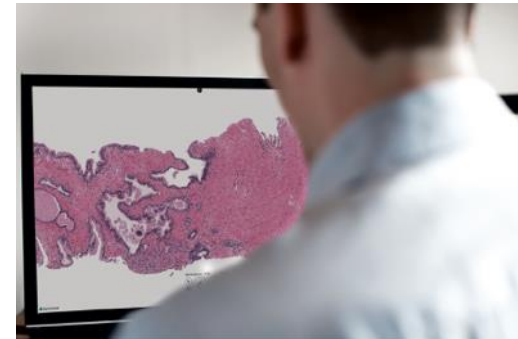
- Provides easy access to specialists
- Means a new, more efficient workflow
- Opens for automated image analysis

**Automated image analysis has the potential to radically transform the diagnosis process and improve patient care.**

**ANALOGUE**

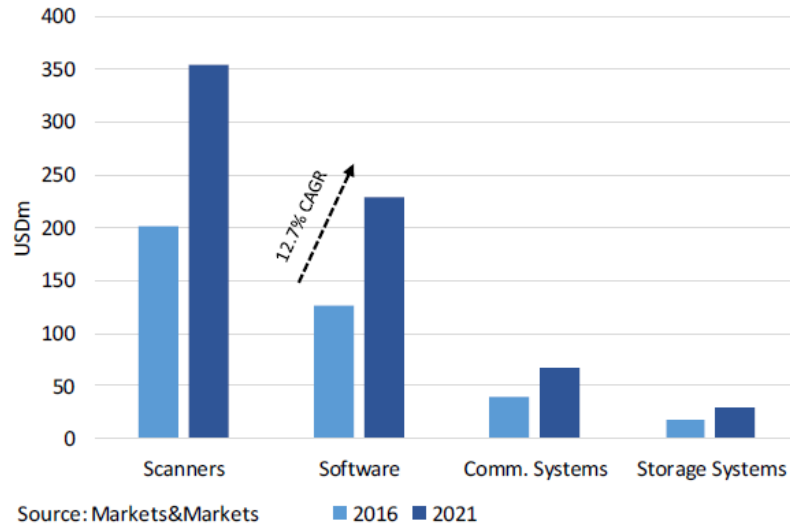


**DIGITAL**

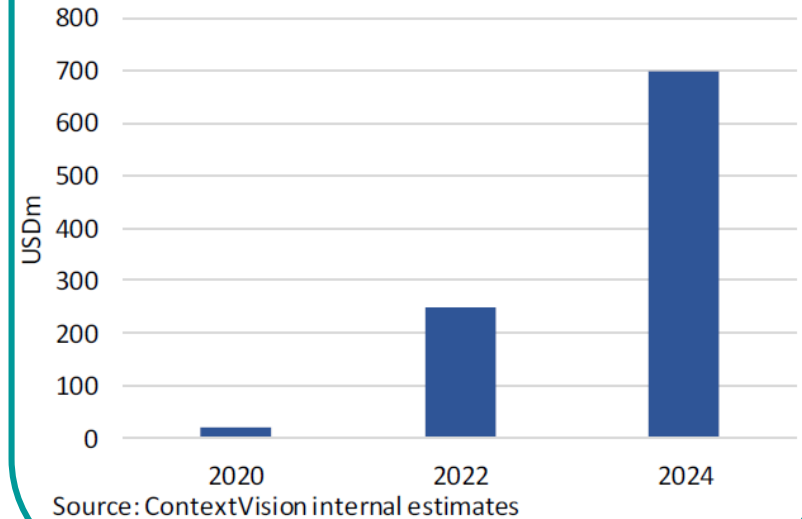


# Market estimations

The digital pathology market



Projected market development for decision support software



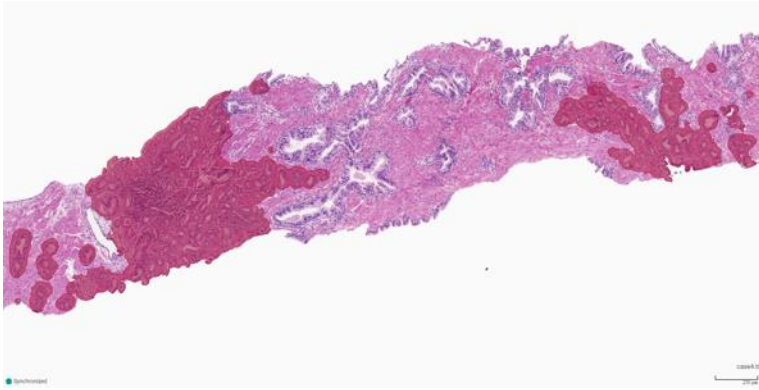
# INIFY<sup>®</sup> – decision support tools

- ContextVision is developing a portfolio of decision support tools targeting major cancer diseases
- The tools are developed by training Deep Learning networks, using high quality data and annotations
- Each year ~2.3 billion prostate biopsy procedures are performed in Europe and the USA
- Other areas with a heavy pathology lab workload are colon, lung and breast cancer
- **First product – INIFY Prostate Screening**





# First product – INIFY® Prostate Screening

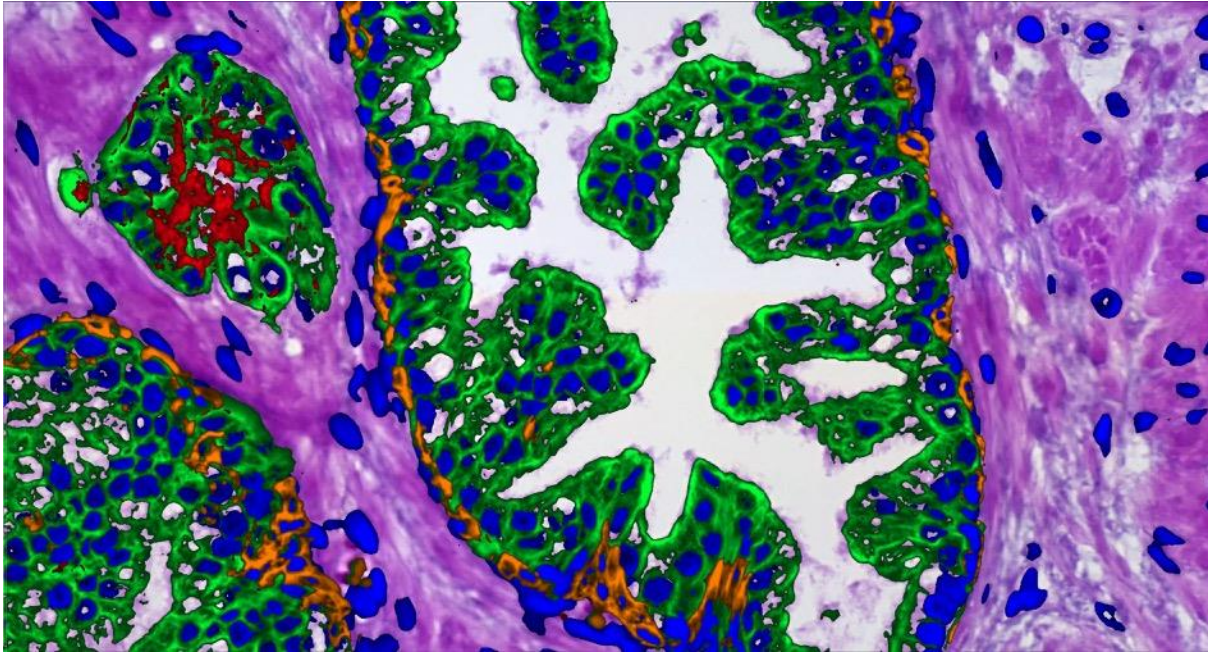


Outlines suspicious cancer areas in each prostate biopsy



Viewer provides a smooth, intuitive user experience

# MasterAnnotation™ – a unique, patented method



Generates close-to-ground-truth data for training our Deep Learning networks

A multiplex immunofluorescence overlay is combined with H&E staining on the same tissue slide for exact identification of suspicious cancer areas

Patent US 10,572,996

# INIFY<sup>®</sup> Prostate Screening – workflow


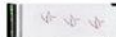







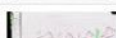


SCAN PROSTATE BIOPSY



APPLY DL ALGORITHM



SORT SLIDES – “WORST FIRST”

591812		Suspicious 73%
591729		Suspicious 68%
591650		Suspicious 63%
591567		Suspicious 33%
591432		Suspicious 8%
591347		Benign
591259		Benign
591147		Benign
591063		Benign
590975		Benign
590851		Benign
590765		Benign



# INIFY® Prostate Screening – integrated in clinical workflow since 2018



**FILIPPO FRAGGETTA, MD**

“It is so easy to use... just scan the slides and you will have the answer automatically on your tray within your LIS.”

Original Article

## Routine Digital Pathology Workflow: The Catania Experience

Filippo Fraggetta<sup>1</sup>, Salvatore Garozzo<sup>1</sup>, Gian Franco Zannoni<sup>2</sup>, Liron Pantanowitz<sup>3</sup>, Esther Diana Rossi<sup>2</sup>

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Accepted: 10 October 2017

Published: 19 December 2017

# Digital Pathology – summary

- With an unmatched experience within algorithm based software products development for image based applications...
- We Invest significantly in a computational pathology business to enter the rapidly developing digital pathology market...
- and develops decision support tools for pathologists, focusing on cancer types that create the heaviest workload
- **Our first product: INIFY® Prostate Screening**



# ContextVision – summary

- At the forefront of image processing and decision support technology
- Delivering software solutions that address today's healthcare challenges, enabling radical transformation
- About to enter the fast-growing Digital Pathology market
- An established company, market leaders within image processing for Medical Imaging, now adding digital pathology and aiming at treatment guidance.
- COVID-19 comments