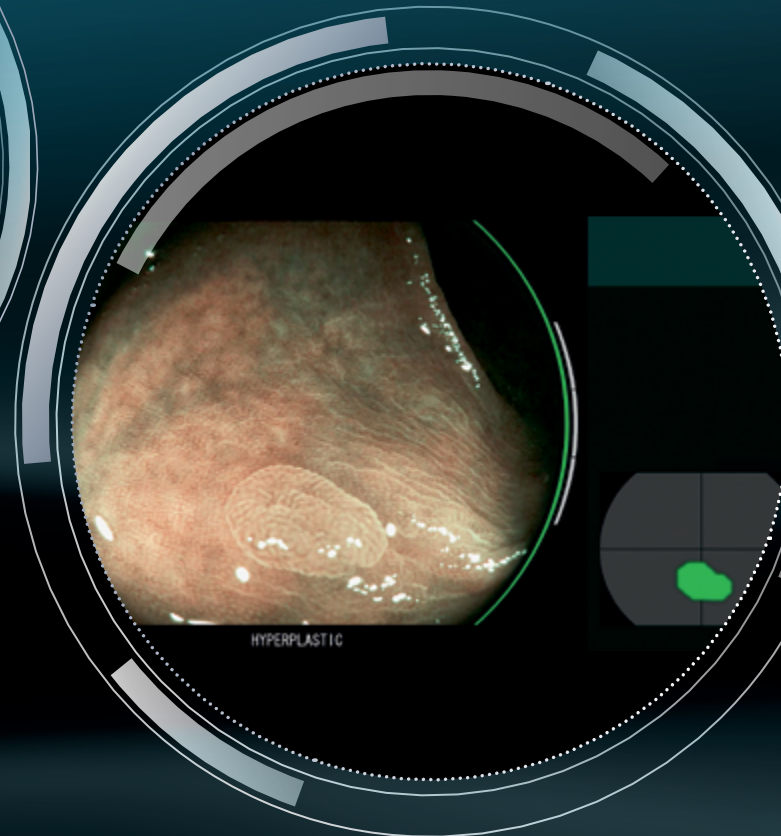
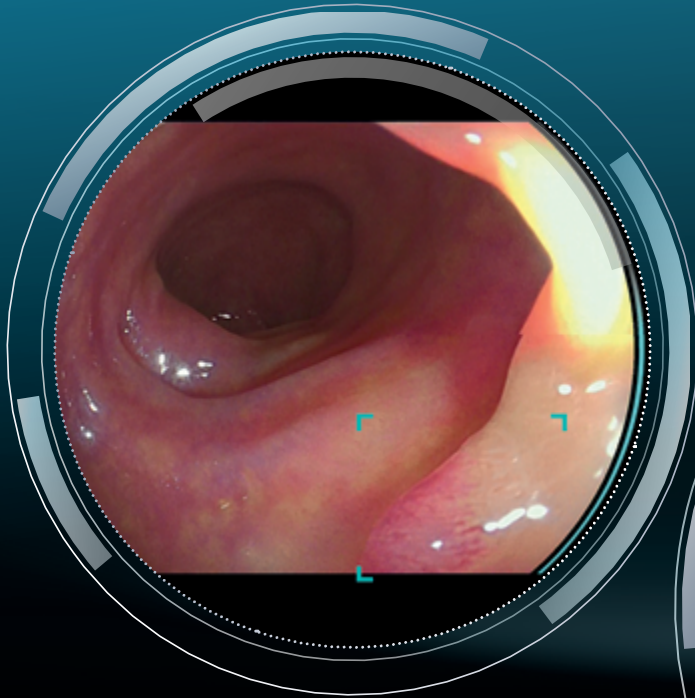




FOR COLONIC POLYPS



# ELUXEO™ MEETS ARTIFICIAL INTELLIGENCE

DETECTION AND CHARACTERISATION



POWERED BY REiLI



FUJIFILM  
Value from Innovation



# ACCELERATE INNOVATION



Fujifilm has pursued and developed cutting-edge image processing technologies for many years. And in 2018, by utilising these technologies it has developed its proprietary medical AI technology.

## REILI - MEDICAL AI TECHNOLOGY

Fujifilm continues to develop technologies that can be applied to medical image diagnosis. One particular focus has been the development of technologies powered by REILI for the radiology field as well as medical ultrasound and, more recently, endoscopy.

## CAD EYE FOR DETECTION AND CHARACTERISATION

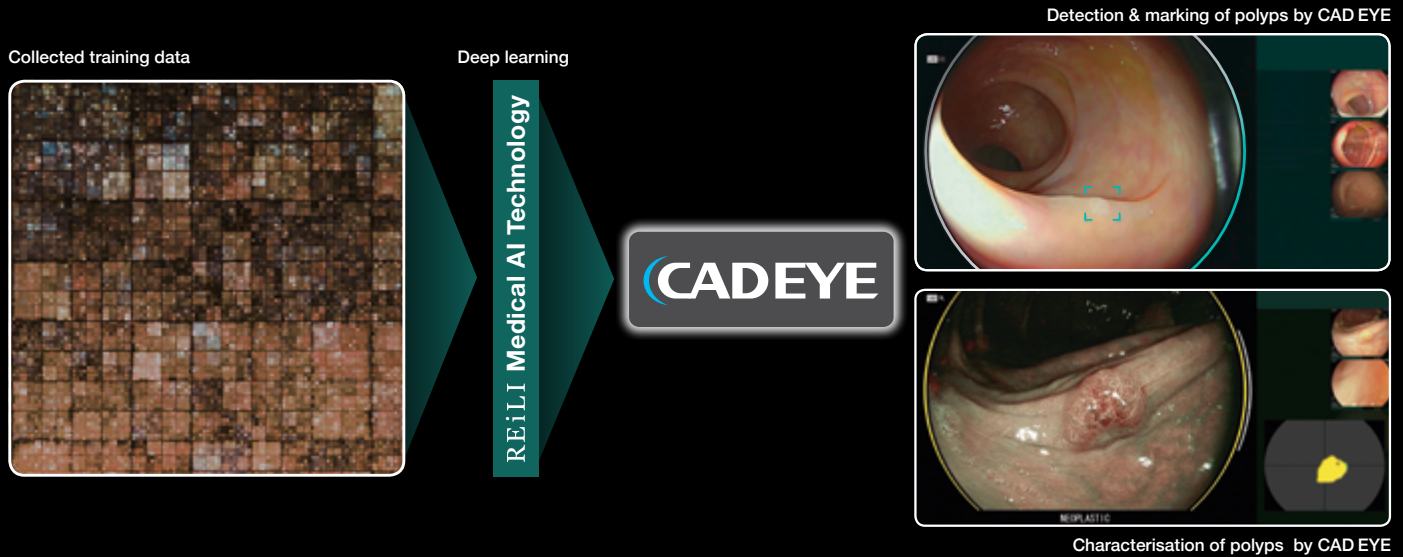
CAD EYE has been developed utilising AI deep learning technology and is compatible with Fujifilm's ELUXEO™ endoscopy series to support endoscopic lesion detection and characterisation in the colon.

## FUJIFILM'S HISTORY OF INNOVATIONS IN ARTIFICIAL INTELLIGENCE

<p><b>1956</b> Launched the "FUJIC" calculator</p> 	<p><b>1983</b> Launched the world's first digital radiography system: FOR</p>	<p><b>1996</b> Launched patented image intelligence algorithms in the consumer photo marketplace</p> 	<p><b>1999</b> Released the industry's first web-based Radiology PACS</p> 	<p><b>2007</b> Launched facial image recognition in digital still cameras</p>	<p><b>2010</b> Launched Synapse® 3D's simulator for organ recognition/resection Launched support for mammography CAD</p>	
<p><b>1980</b></p> 	<p><b>1990</b></p> 	<p><b>2000</b></p> 	<p><b>2010</b></p> 	<p><b>2018</b></p> 	<p><b>2018</b></p> 	<p><b>2018</b></p> 
			Machine learning			
Image processing		Image recognition				

# DEEP LEARNING TECHNOLOGY

CAD EYE has been trained with a powerful supercomputer located in Fujifilm's global AI technology centre in Tokyo, utilising an immense amount of clinical images using Fujifilm endoscopy systems. As a result, CAD EYE is a customised detection and characterisation support compatible with the ELUXEO™ system.



**2014**

Launched Virtual Grid™ processing, which enhances image contrast and clarity



**2014**

**2018**

Launched the REiLI artificial intelligence platform and deep learning engines

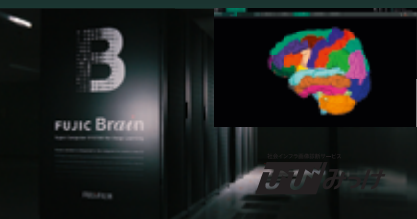


Brain(s) creative AI center installed NVIDIA's DGX-2 for AI development

Launched AI algorithms for bridge crack detection to support infrastructure improvements

Entered joint research agreement with Indiana University School of Medicine for AI medical imaging development

Announced joint collaboration with Lunit Inc. and Salud Digna to help radiologists evaluate AI technologies for diagnostic imaging



ELUXEO™ MEETS

REiLI



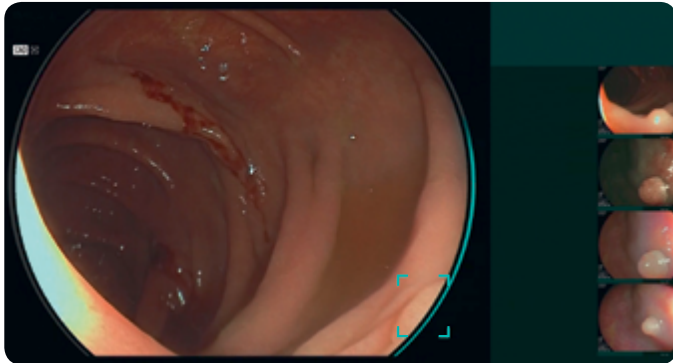
Deep learning

Diagnostic support

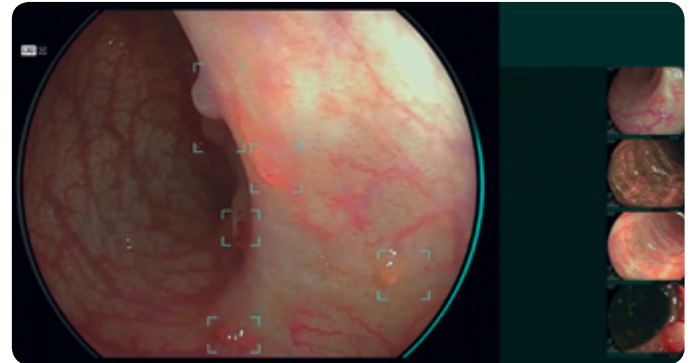


# LCI REAL-TIME DETECTION

**CAD EYE is aimed to improve the real time polyp detection rate** to expert level, helping to recognise flat lesions, multiple polyps simultaneously, as well as any lesions at the corner of the image. CAD EYE Detection is possible with White Light and LCI (Linked Color Imaging) mode.



White Light Mode



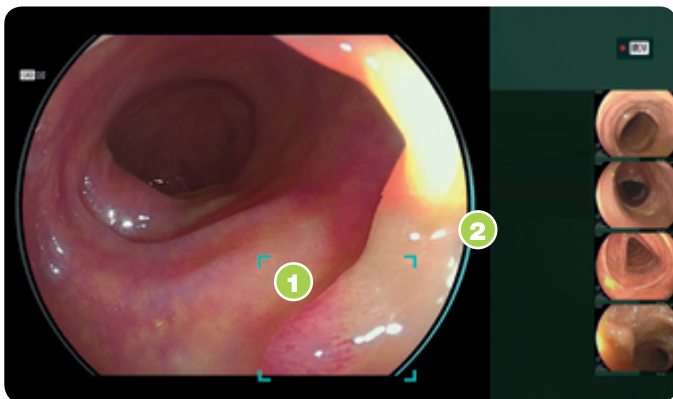
LCI Mode





CAD EYE received the prestigious Good Design Award for its


## USER-FRIENDLY INTERFACE

The development of the interface has been designed to enable comfortable procedures. It does not interfere with clinical images and minimises required eye movement. Its display is designed to be simple and intuitive for excellent support during long hours in the examination room.



**1**  **DETECTION BOX**  
Displays the area where the suspicious polyp is detected.

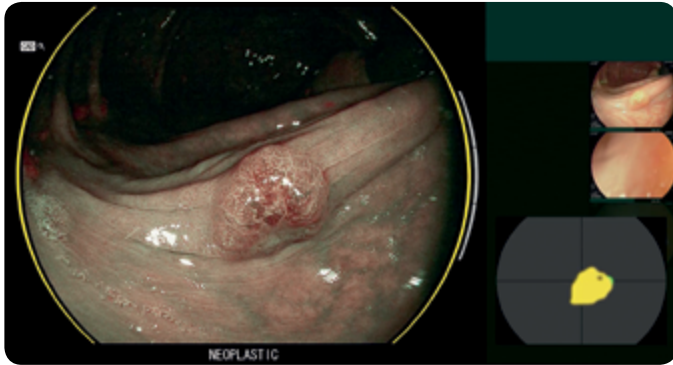
**2**  **VISUAL ASSIST CIRCLE**  
Lights up in the direction where the suspicious polyp is detected.

 **DETECTION SOUND**  
Sound signal when a suspicious polyp is detected. Volume can be defined for each user.

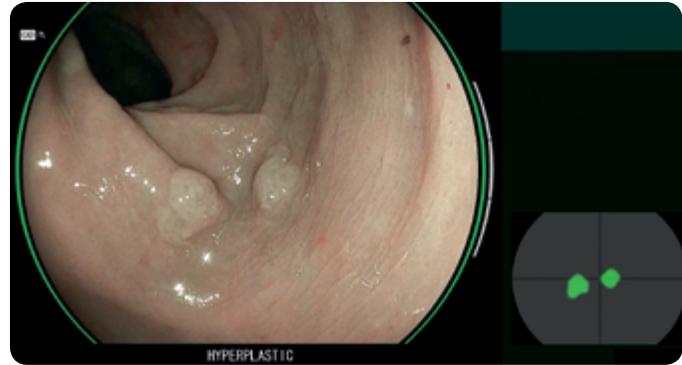


# BLI CHARACTERISATION SUPPORT

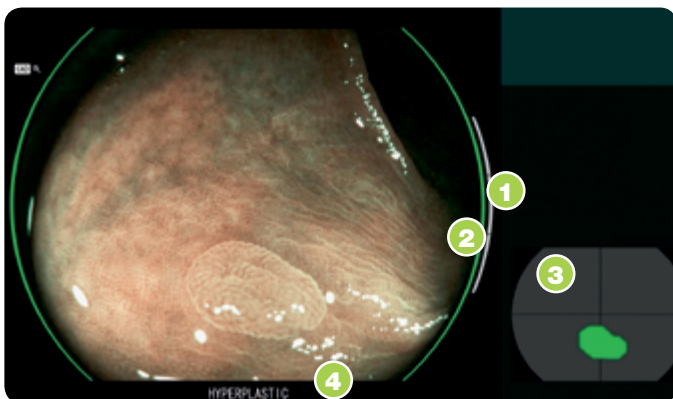
Once a suspected polyp is detected by CAD EYE Detection (WLI or LCI), CAD EYE Characterisation – in combination with BLI – can support endoscopists in the diagnosis of the polyp. This function analyses in real-time and without freezing or zooming if a polyp is hyperplastic or neoplastic, which is visually indicated by the use of different colour codes in the Position Map. CAD EYE Characterisation is aimed to make procedures more efficient by increasing the accuracy of diagnosis to expert-level.\*



BLI Mode – Neoplastic



BLI Mode – Hyperplastic



- 1 **STATUS BAR**  
Indicates status of characterisation analysis regarding to area suspected.
- 2 **VISUAL ASSIST CIRCLE**  
GREEN: Characterisation HYPERPLASTIC  
YELLOW: Characterisation NEOPLASTIC
- 3 **POSITION MAP**  
Indicates the position of the suspicious area, this software is characterising.
- 4 **CHARACTERISATION RESULT**  
HYPERPLASTIC: hyperplastic polyps & SSL  
NEOPLASTIC: adenoma and cancer

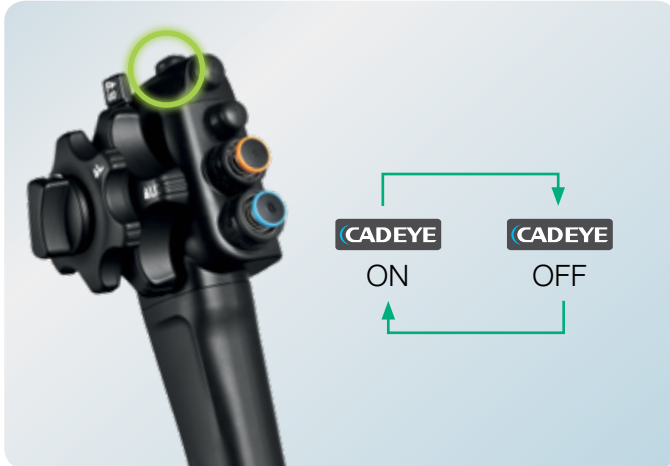
\*According to the validation study, the accuracy of non experts with the assistance of CAD EYE Characterisation was equivalent to that of an expert.



# FOR YOUR **DAILY EXAMINATION**

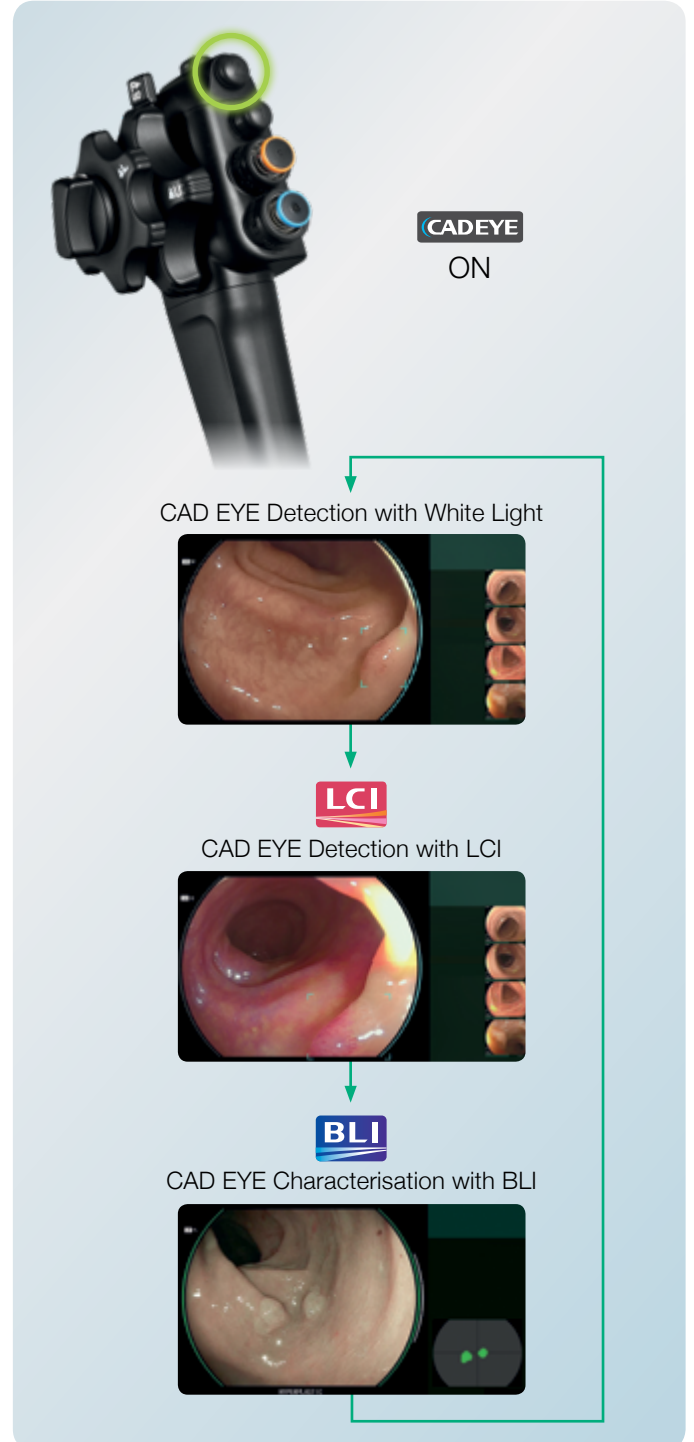
CAD EYE can be activated and deactivated simply by a push on the endoscope button or directly at the processor.

## SCOPE SWITCH 3



The function of each switch can be defined individually.

## SCOPE SWITCH 2



## MOVIE RECORDING FUNCTION\*

Full HD movies can be recorded and stored at the expansion unit EX-1. It can be controlled via the scope switch or directly at the ELUXEO™ processor.



\* Video files should not be used for diagnoses.

# SPECIFICATIONS

**CAD EYE works with the expansion unit EX-1 and the CAD EYE software EW10-EC02 and can store up to 30 hours of video material in its internal memory. It can easily be controlled with the scope switch or directly at the processor.**

## Expansion Unit EX-1

Compatible processors	VP-7000, EP-6000
Compatible scopes	700 series colonoscopes**
Output	DVI-I x1, DVI-D x1
Input	DVI-I x1
Memory	30 hours of video material, Full-HD, MP4
Power rating	100-240 VAC +/- 10%, 50/60 Hz, 1.25 to 0.60 A
Dimensions (W x H x D)	370.0 x 99.0 x 465.6 mm
Weight	7.1 kg

\*\* Movie recording function is compatible with 700/600/500 scopes excluding EUS scopes

## Software EW10-EC02

Package Content	USB flash drive for CAD EYE installment, user manual
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- 1 **CADEYE**  
**FOR COLONIC POLYP DETECTION & CHARACTERISATION**
- 2 **MOVIE RECORDING FUNCTION**

Expansion Unit EX-1

**NEVER  
STOP**

**FUJIFILM**

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