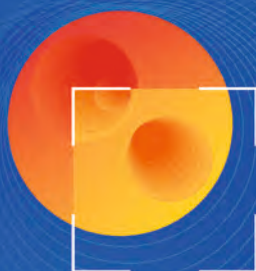


## Let's Be Clear

Elevating the Standard of Endoscopy



### **BAI-MAC**

The Brilliance of  
Even Illumination



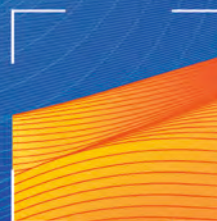
### **RDI**

The Safeguard for  
Endoscopic Therapy



### **TXI**

The New  
White Light





# Let's Be Clear: Elevating the Standard of Endoscopy

EVIS X1

Introducing a new era of technologies focusing on advancing visualization, control and workflow — we are proud to present our most advanced endoscopy system.

EVIS X1 introduces a range of new, easy-to-use technologies that aim to revolutionize the way pulmonary disorders can be detected, characterized and sampled.

We want to support every endoscopist.  
In every procedure. Every day.

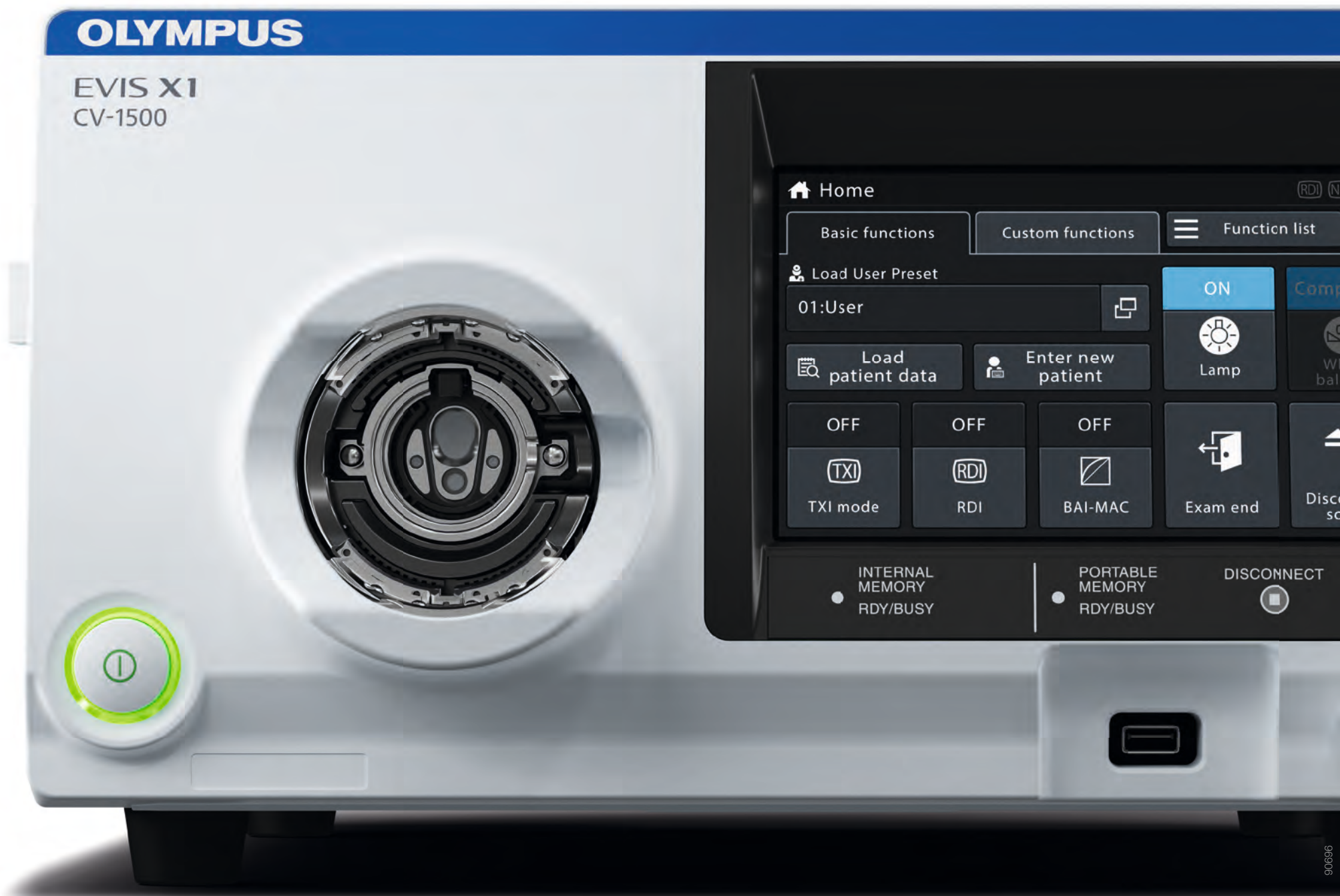


## Reaffirming the Leadership in Endoscopy

The new system from the world leader in gastrointestinal endoscopy\* covers a wider range of medical areas to improve outcomes from bronchial diseases as well as from disorders of the stomach, colon and esophagus.

\* More than 70% global market share in gastrointestinal endoscopic equipment as of March 2019.

EVIS X1





# The Brilliance of Even Illumination

## Brightness Adjustment Imaging with Maintenance of Contrast (BAI-MAC)

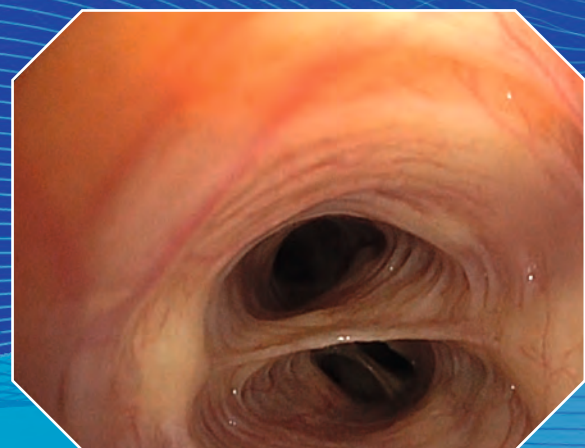
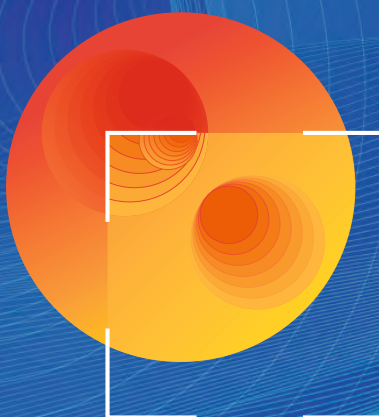
Illumination inside the bronchial anatomy is crucial in order to also anticipate deeper structures. Dark areas become brighter without overexposing areas close to the bronchoscope tip. For the examiner, this means ease of use and potentially less fatigue.

**BAI-MAC provides a better overview inside the anatomy and thus supports taking procedure quality and examiner confidence to the next level.**



## BAI-MAC Brightness Adjustment Imaging with Maintenance of Contrast

Each image is split into texture and brightness information. The texture remains unchanged, while the brightness of dark areas is automatically enhanced. Combining the original texture information with the adjusted brightness information generates a new, improved image in which close-by and distant areas are evenly illuminated — resulting in an enhanced and clear view within bronchial structures.



White Light

BAI-MAC



# The New White Light

## Texture and Color Enhancement Imaging (TXI)

Obtaining a clear image of the mucosa, with its red colors that can hardly be differentiated, is challenging.

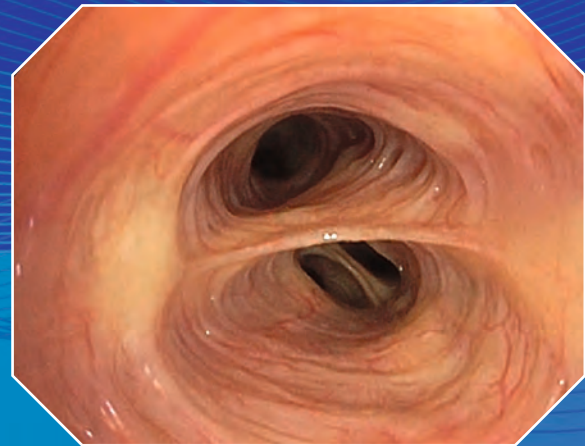
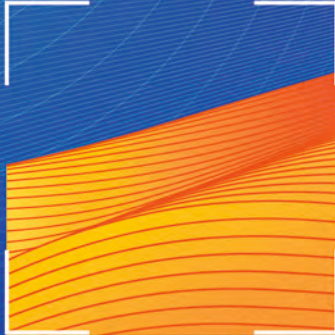
TXI technology aims to enhance the visibility of potentially suspicious tissue, which includes inflammations and flat or depressed lesions, using a white-light imaging effect that improves the color, structure and brightness.

By supporting better visibility of different mucosal structures, TXI aims to give the examiner more confidence and to improve the quality of bronchial biopsies.

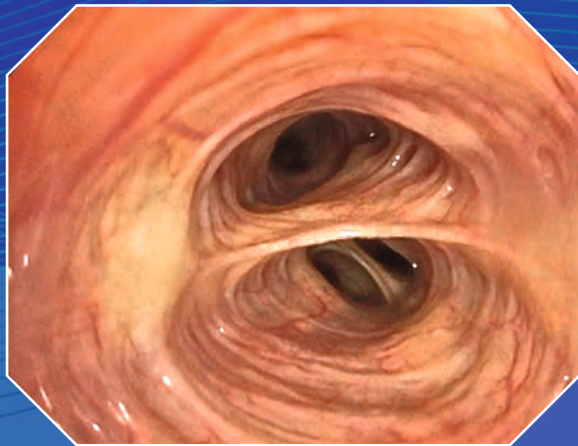


### TXI Texture and Color Enhancement Imaging

The incoming image is split, and the texture and brightness are enhanced before the separate images are merged back together. Additional color enhancements leading to a larger bandwidth of red tones are made to more clearly define subtle differences in tissue color. In sum, the image is brighter and more contrasted, but still comprising natural red colors.



White Light



TXI



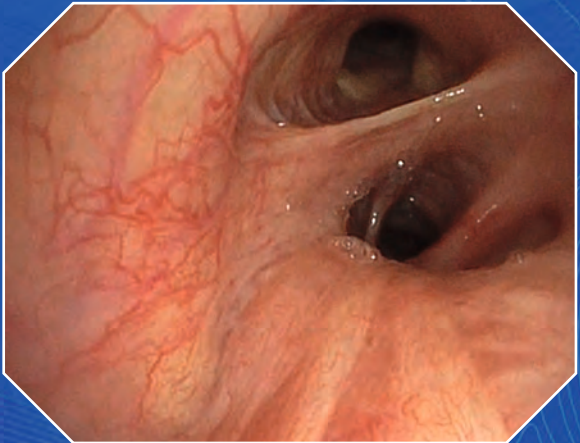
# The Safeguard for Endoscopic Therapy

## Red Dichromatic Imaging (RDI)

Internal bleeding in general can be a serious challenge. Consequently, prevention of bleeding during a bronchoscopy is crucial.

RDI is designed to enhance the visibility of blood vessels in the deeper mucosal layers, as well as sources of bleeding.

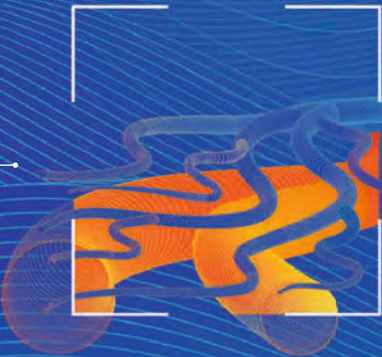
Easy detection of large vessels helps find optimal biopsy sites, with the aim of making bronchial biopsies safer and more comfortable.



White Light



RDI



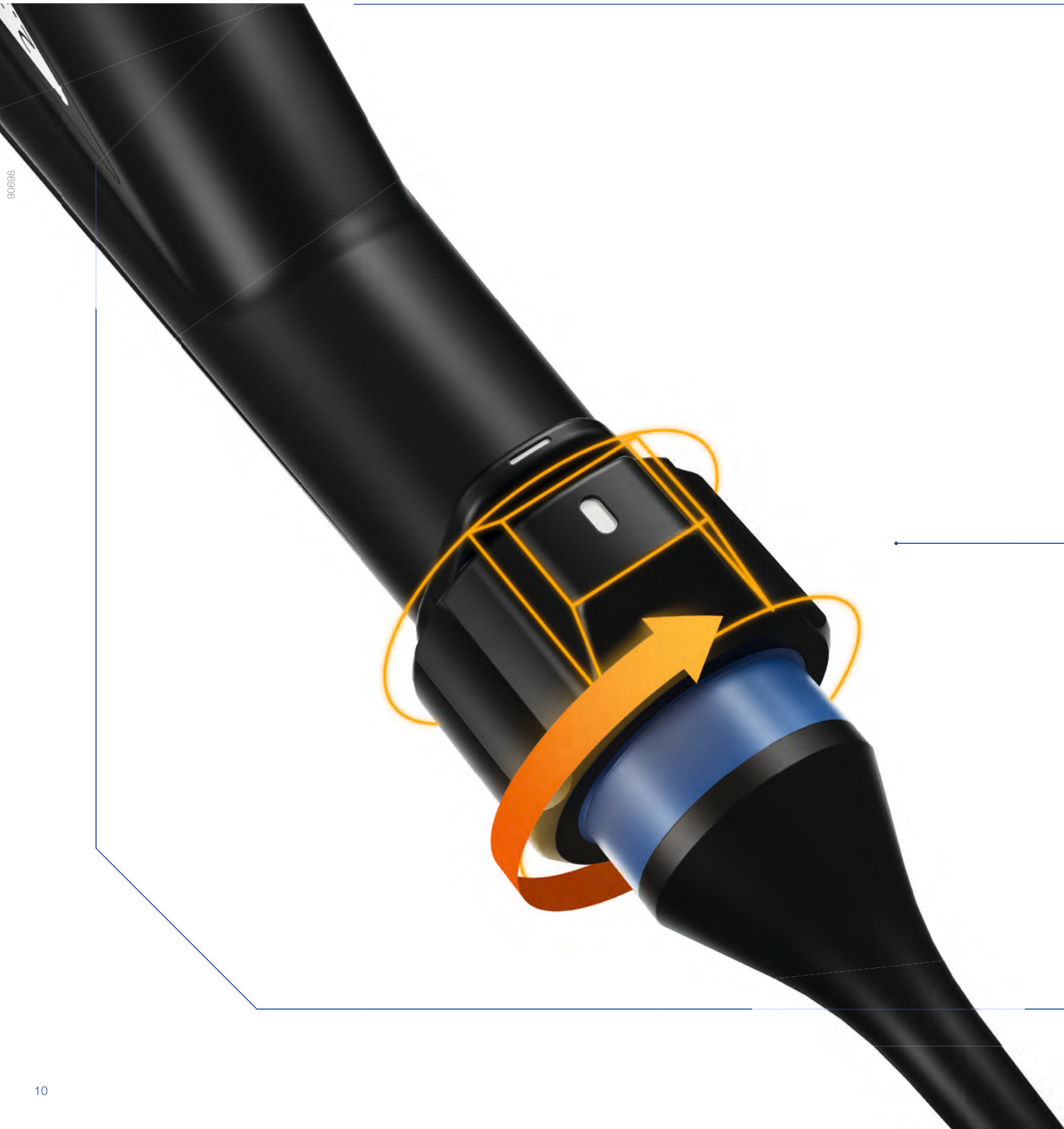
### RDI Red Dichromatic Imaging

RDI works by employing specific green, amber and red wavelengths. The latter two penetrate deep into the mucosa, enabling the visualization of deep blood vessels, while the green light provides the contrast required to differentiate the vessels from the surrounding mucosa. As a result, the RDI image can improve the confidence in selecting the sampling spot by avoiding large mucosal vessels.



# The Improvement of Ergonomic Scores

## Insertion Tube Rotation Function



**Our endoscopic systems are designed to create a safe, comfortable and productive workspace.**

Repetitive and prolonged gestures can result in musculoskeletal complaints or even work-related injuries. To avoid such ergonomic burden as far as feasible, we have equipped our bronchoscopes with an insertion tube rotation function.

### Insertion Tube Rotation Function

This function allows rotating the bronchoscope handle and insertion tube up to 120 degrees in both directions. Thus, the examiner can adopt a more ergonomic posture. Especially when targeting the left upper lobe, the insertion tube rotation function significantly improves ergonomic scores.<sup>1</sup>

<sup>1</sup> Gilbert CR, Thiboutot J, Mallow C, et al. Assessment of Ergonomic Strain and Positioning During Bronchoscopic Procedures: A Feasibility Study. J Bronchology Interv Pulmonol. 2020;27(1):58-67. doi:10.1097/LBR.0000000000000615.

# Let's Be Clear: A Unified Platform with Broad Compatibility

Two Worlds Become One

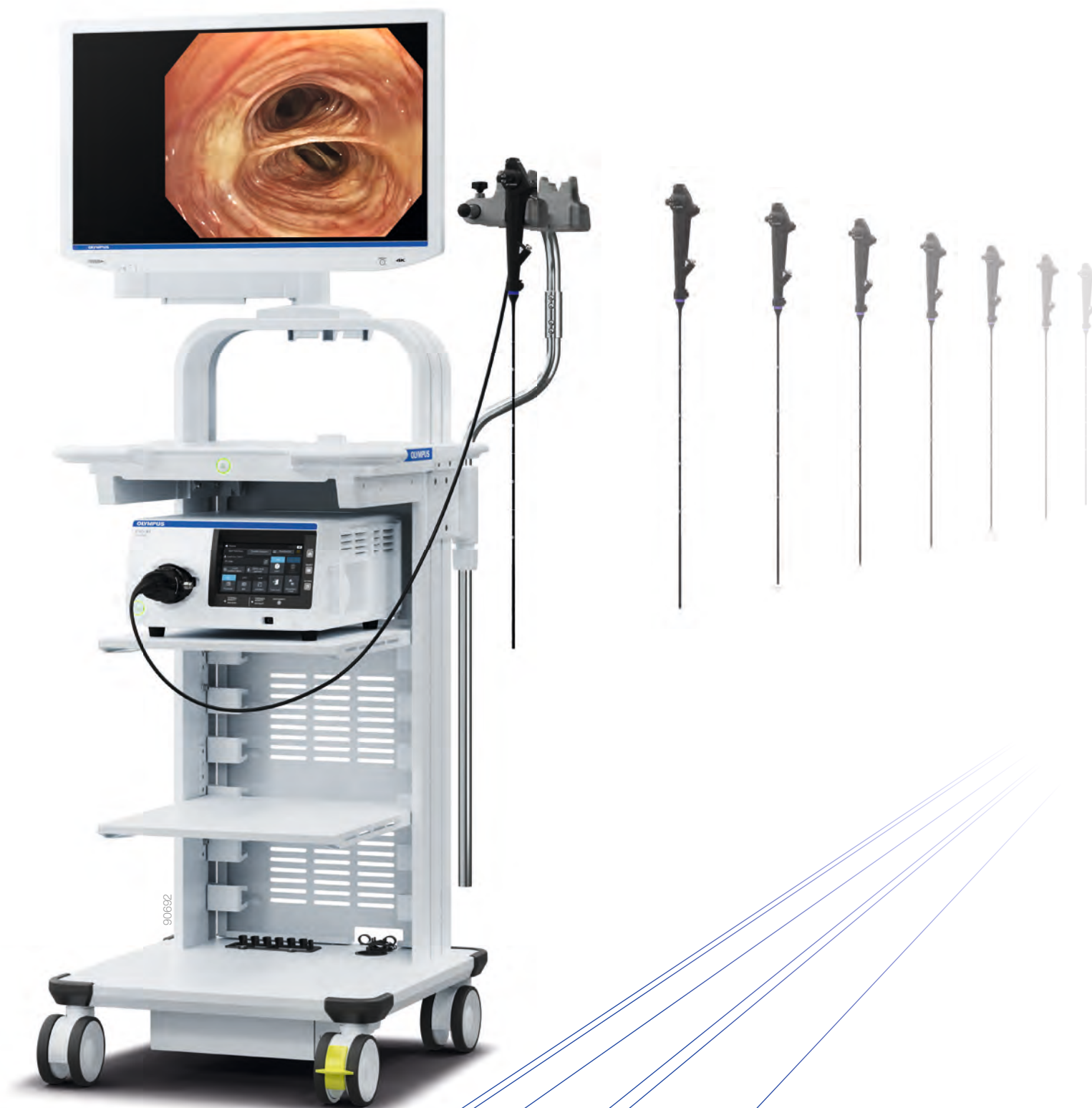
EVIS X1

**One box fits all: EVIS X1 combines advanced knowledge, experience and innovation into one endoscopic system.**

The cross compatibility of the broad Olympus portfolio between specified endoscopes for gastroenterologists and interventional pulmonologists allows the system to be used for a variety of medical purposes. Integration of existing devices is easy: EVIS X1 is compatible with the Olympus endoscopy lines EVIS EXERA III and EVIS LUCERA ELITE. Having an eye on the overall hospital management, this facilitates increasing the efficient deployment of endoscopic devices.

EVIS LUCERA  
ELITE

EVIS EXERA III





# Let's Be Clear: Elevating the Standard of Endoscopy

## Key Benefits at a Glance

EVIS X1

EVIS X1 provides a combination of diagnostic and therapeutic innovations toward a new era of ease-of-use bronchoscopy with continuously improved features designed to increase the safety of procedures as well as the ergonomic comfort.



### Organic Deep Dive

With an outer diameter of only 4.9 mm, our flagship scope can access smaller bronchi, thus expanding the native HDTV vision during bronchoscopy.



### High Imaging Performance

Getting the most out of every image by combining innovative technologies: WL, NBI, RDI, BAI-MAC and TXI. Autofluorescence imaging (AFI) can be added in conjunction with CV-290 and BF-F260.



### Designed for Therapy

The new flagship therapeutic bronchoscope offers a large 3 mm working channel for fast suction and smoke evacuation and native HDTV image quality. Combined with a broad portfolio of EndoTherapy devices, this series aims to improve therapeutic performance.



### Considering Safety First

RDI acts as confirmation tool for the physician prior to sampling. RDI enhances the visibility of deep blood vessels and thereby aims to reduce the risk of bleeding.



### Supporting Ergonomics

The EVIS X1 system and its range of bronchoscopes are the ideal tools to face even challenging bronchoscopies. The bronchoscopes' remote functions as well as the configuration of the system functions easily adjust to the examiner's needs, leading to improved workflows.



Let's Be Clear: Elevating the Standard of Endoscopy

 **[www.olympus.eu/evisx1-bronchoscopy](http://www.olympus.eu/evisx1-bronchoscopy)**

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