



# CAPPA RESEARCHERS ASSIST AERNUA IN DEVELOPMENT OF AIR STERILISATION TECHNOLOGY



# **BACKGROUND**

<u>AerNua</u> by EAM Engineering Asset Management Limited (EAM Group) is a multifaceted physical resources asset management company with activities ranging from project planning and management to product development and regulatory certification. AerNua's cutting-edge sterilisation technology and proven science assist in the production of clean air. They aim to help the community in the fight against COVID – 19 and other common virus transmissions.

# THE NEED

EAM reacted swiftly to drawbacks faced by communities due to COVID-19 by developing a novel, highly integrated air-management, monitoring, and sterilisation appliance: AerNua.

EAM Group needed assistance with the development process in terms of characterisation and testing i.e. verification and validation of EAM Group's system design and engineering calculations.



### THE SOLUTION

The <u>Centre for Advanced Photonics & Process Analysis</u> (CAPPA) based in MTU Cork, is one of 15 Enterprise Ireland Technology Gateways and is at the forefront of photonics research in Ireland. CAPPA provides solutions to companies in sectors such as photonics, medical devices, food, and pharma, ranging from short-term consultancy to multi-year collaborative projects. The CAPPA Gateway applies light-based photonic technologies for near-to-market problems for industrial partners.

# **BENEFITS OF THE ENGAGEMENT**

CAPPA characterised and tested the AerNua appliance in terms of special distribution of irradiance and airflow. This was done on both an empirical and numerical level. CAPPA's testing and mathematical evaluation of the AerNua 100 Series appliance provided AerNua with the confidence to move forward into full production in metal fabrication. AerNua feels that independent testing and, verification of the product and application of the science, strongly position them for investor funding and success in a competitive market.

The application of AerNua's technology for the management of common pathogens, including Covid-19, has been verified by Munster Technological University (MTU), CAPPA (the Centre for Advanced Photonics & Process Analysis) and Compliance Engineering Ireland.