

TOWARDS ZERO INFECTIONS

The next standard in ventilation for clean, comfortable and energy-efficient healthcare spaces

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Peter Höjerback, CEO

AVIDICARE

The Big Problem

Surgical site infections (SSIs) are a major global issue, causing significant suffering, fatalities, and skyrocketing healthcare costs.

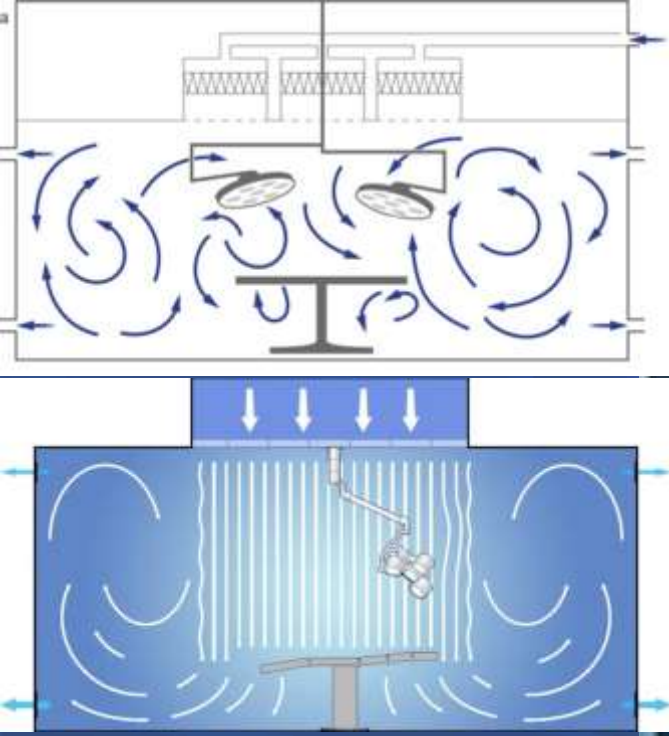
A single infection can cost anywhere between €10,000 and €100,000 per case.

Despite preventive measures like sterile protocols, prophylactic antibiotics, and ventilation, 2-10% of surgeries still result in infection depending on geography.

The world's best hospitals achieve infection rates below 1%, proving there is massive potential for improvement.

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The Role of Ventilation Against SSIs

Reducing airborne bacteria in the operating room directly lowers infection risk.

Current ventilation solutions face significant challenges:

- Limited effectiveness
- Unclear impact
- High operating cost
 - Extreme energy consumption
 - Bulky installations taking up valuable space
 - Poor comfort and working conditions for surgical staff
 - Uneven cleanliness, especially in the room's periphery
- Several practical constraints

Ventilation must also ensure comfort and indoor air quality (incl surgical smoke).



The Solution: Opragon from Avidicare

The Opragon solution makes critical healthcare spaces cleaner with less air. This next standard offers:

- ✓ Superior bacterial reduction without excessive airflow
- ✓ Lower energy consumption and operating costs
- ✓ Better comfort and working conditions for staff
- ✓ Consistently clean air throughout the entire room

Does it sound too good to be true? It isn't!

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Opragon is a Superior Ventilation Solution for All Types of Operating Rooms



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Additional Application Areas for the Opragon system

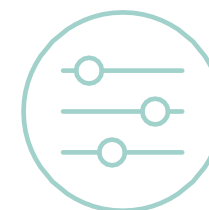
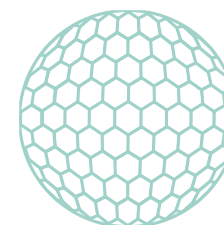
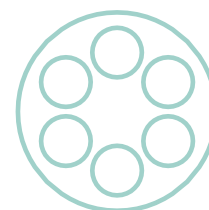
There are several areas in a hospital that require clean air to protect patients, staff and goods

Prep Rooms

Intensive Care Units

Isolation Rooms

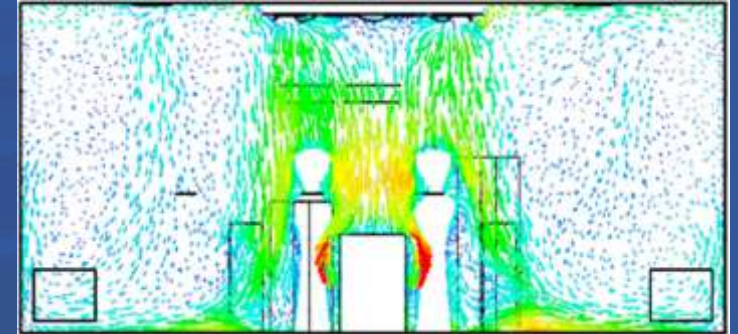
Labs, CSSD/SPD



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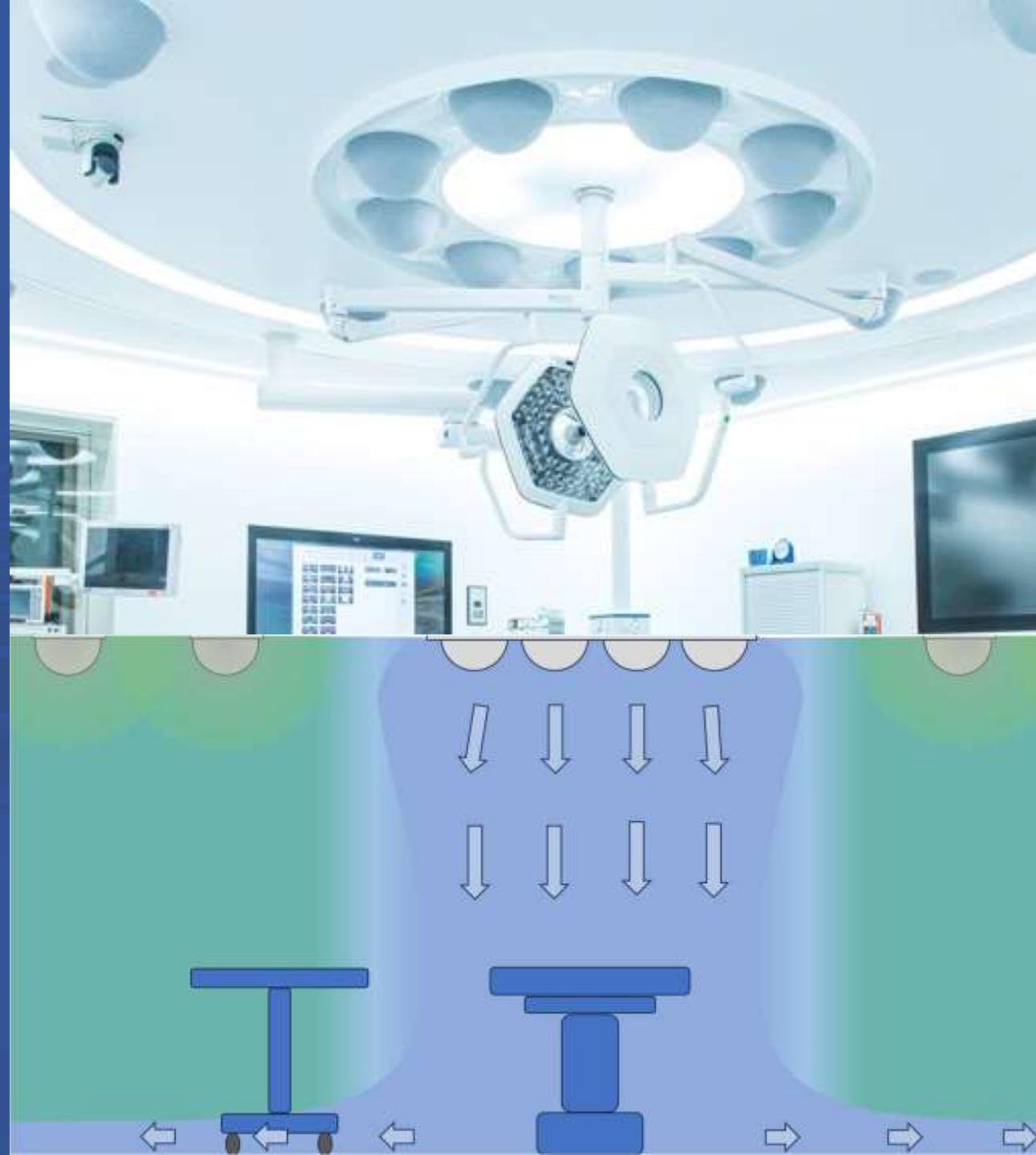
Pioneering Use of Scientific Evidence

- Shown to reduce bacteria-levels below thresholds for ultra-clean air both in wound area and periphery with 30% less energy and improved thermal comfort
(Alsved et al, 2018 in Journal of Hospital Infection)
- A retrospective analysis showed that switching from a turbulent-mixing system to Opragon reduced SSI rates from 3% to 1% and shortened patient length of stay
(Bulitta et al., 2020 in Current Directions in Biomedical Engineering)
- Computational Fluid Dynamics (CFD) simulations showed controlled airflows and reduced sensitivity to obstructions
(Sadrizadeh & Holmberg, 2014; Liu et al., 2021; Liu et al., 2022 in various journals)
- Shown that Opragon can be used effectively in hybrid operating rooms together with ceiling mounted imaging systems from companies like Philips and Siemens Healthineers
(Hu et al., 2024 in Building and Environment)

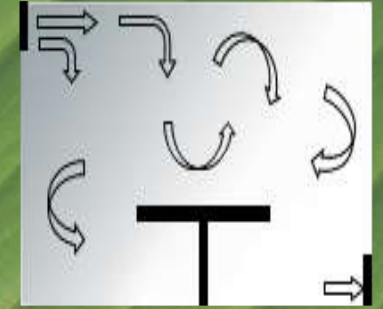
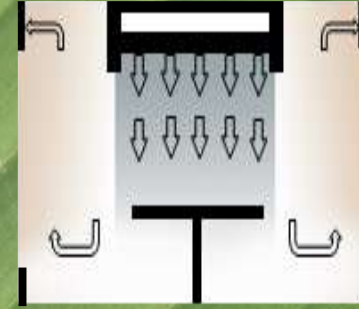
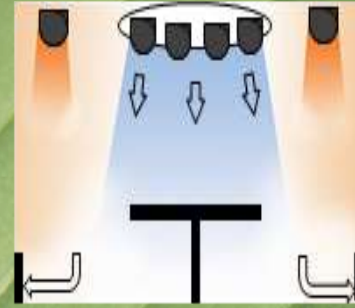


How does it work?

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Comparison of Ventilation Solutions

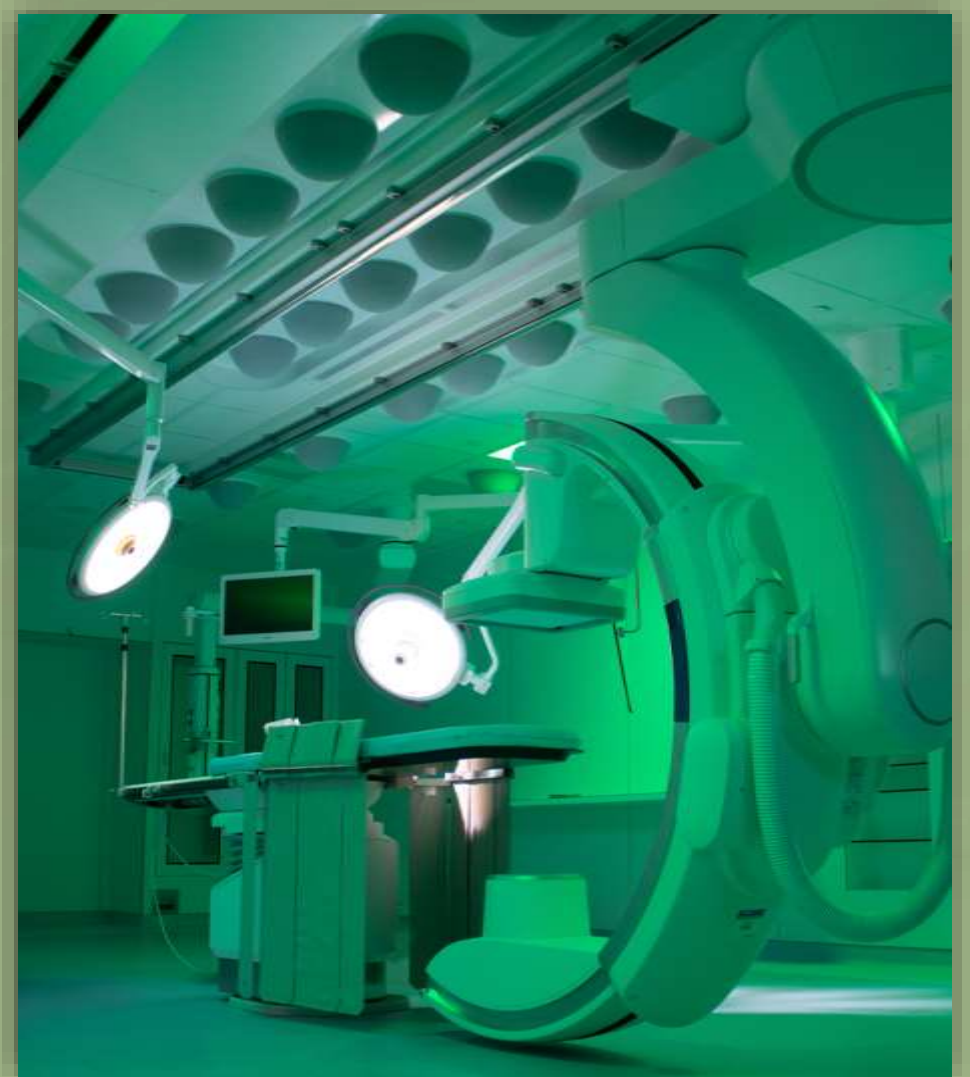


Feature	TcAF (Opragon)	UDAF	TMV
Airflow Rate (m³/h)	6 700	12 500	4000-23000
Critical Zone Cleanliness	0–1 CFU/m³	0–1 CFU/m³	>5–10 CFU/m³
Peripheral Cleanliness	<5 CFU/m³	up to 10–20 CFU/m³	
Energy Use	Low	High	Depends on cleanliness level
Thermal Comfort	Stable, good	Prone to drafts	
Sustainability	High	Low	

Net-Zero with Energy-Saving Holistic Strategy

Combine Opron with these measures:

- **Optimize Ventilation:**
 - Use more recirculated air.
 - Use demand-controlled ventilation.
 - Integrate energy recovery ventilators.
- **Enhance HVAC Efficiency:**
 - Upgrade to high-efficiency chillers, boilers, etc.
 - Insulate ducts, optimize temperature/humidity setpoints.
 - Regularly maintain filters and seal air leaks.
- **Adopt Renewable Energy:**
 - Install solar panels or source green energy.
- **Leverage Downtime:**
 - Reduce air changes during non-critical periods.
 - Decouple ventilation from heating/cooling.





Installation in Rochester, NY, USA

Go-to-market model

- Direct sales model in Sweden and a successful distributor in the Netherlands since over 10 years
- Newly established distributor network in key countries in Europe, US and Asia (15 distributors)
- Collaboration and product synergies with Siemens Healthineers and Philips
- Partnerships in HVAC to add value

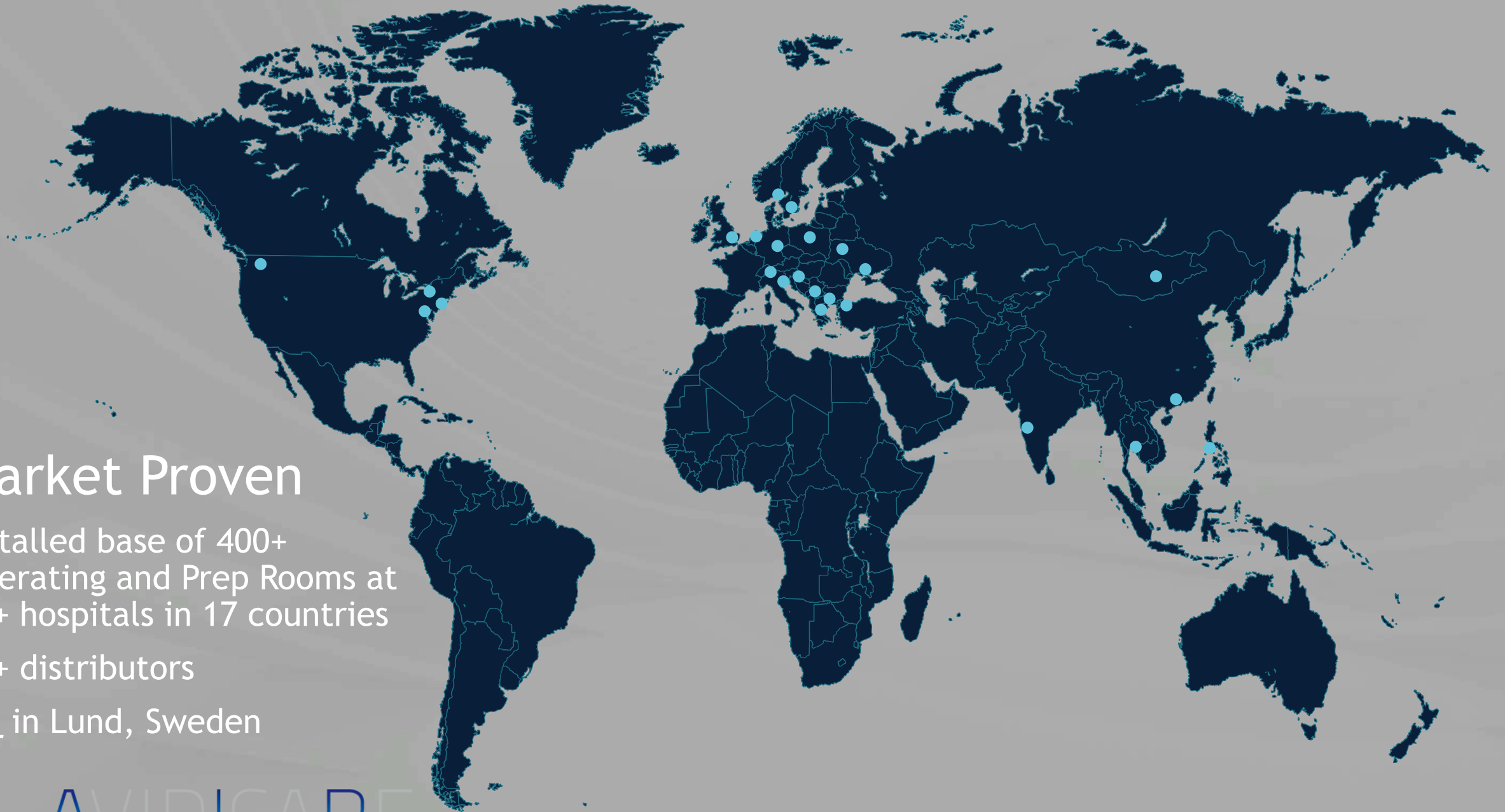
Market Proven

Installed base of 400+
Operating and Prep Rooms at
50+ hospitals in 17 countries

15+ distributors

HQ in Lund, Sweden

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A photograph of a modern operating room with a large circular surgical light fixture hanging from the ceiling. In the background, there are medical monitors and equipment. A dark blue semi-transparent banner is overlaid across the middle of the image.

THANK YOU - AND LET'S TALK!

Peter Höjerback, CEO Avidicare

peter.hojerback@avidicare.com
+46 709 759 000

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