

# Sensis Vibe

Amplify productivity

[siemens-healthineers.com/sensis](https://siemens-healthineers.com/sensis)



# The field of cardiovascular interventions is rapidly changing

The global burden of cardiovascular disease (CVD) is immense. With over 17 million deaths per year, CVD is the leading global cause of death. This figure is expected to rise to more than 23 million by 2030.<sup>5</sup>

The factors that drive this development are clearly visible: Obesity doubled globally between 1980 and 2008. Arterial hypertension has also risen dramatically over the same period.<sup>6</sup> Aging populations, insufficient physical activity and adoptions of western lifestyle all over the globe lead to an increasing number of patients with cardiovascular diseases. This development increases the demand for cardiovascular procedures.

At the same time, economic pressure is causing healthcare providers to adopt new paradigms of care that counteract the general trend of increasing costs for cardiovascular treatment. To service more people at lower costs while still providing state-of-the-art patient care, institutions will have to streamline their interventional workflows and documentation processes, enable interventional lab sharing, and ensure reliable data transfer and billing.

<sup>1</sup> [www.who.int/en/news-room/fact-sheets/detail/obesity-and-overweight](http://www.who.int/en/news-room/fact-sheets/detail/obesity-and-overweight)

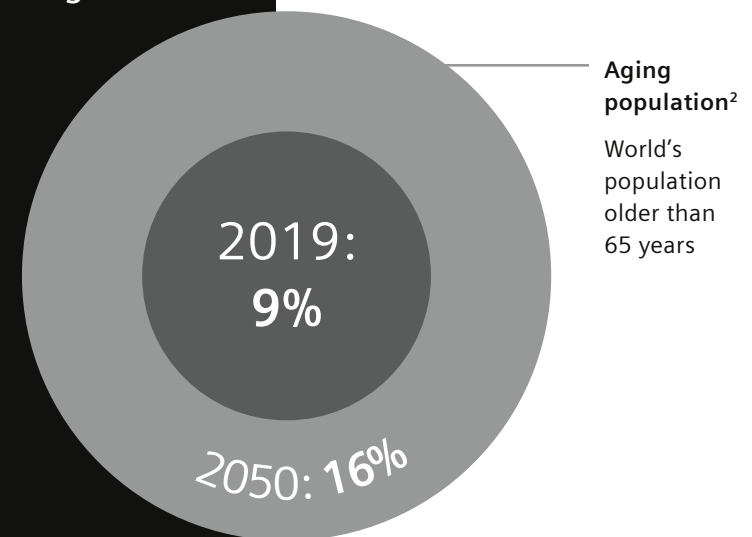
<sup>2</sup> [www.who.int/health-topics/hypertension](http://www.who.int/health-topics/hypertension)

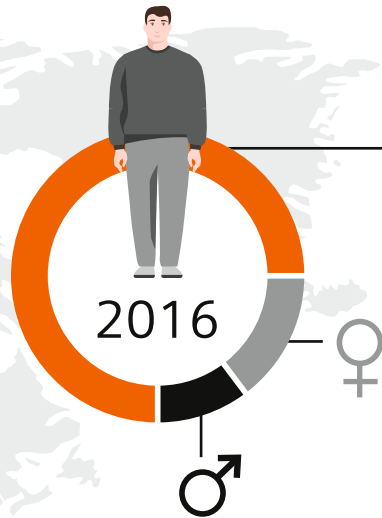
<sup>3</sup> [www.who.int/health-topics/cardiovascular-diseases/](http://www.who.int/health-topics/cardiovascular-diseases/)

<sup>4</sup> Decision Resources Group Medtech360 (Mar 2018) & own extrapolation

<sup>5</sup> World Heart Federation. State of the Heart – CVD Report. [www.world-heart-federation.org/?id=5537](http://www.world-heart-federation.org/?id=5537)

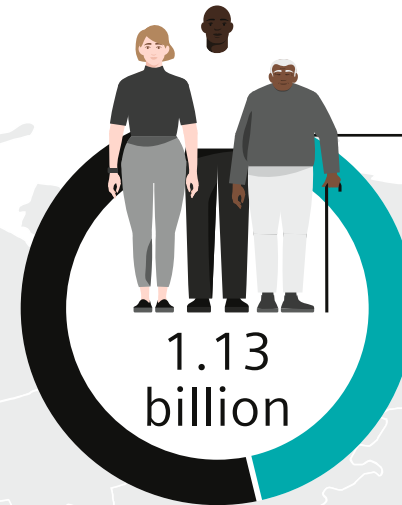
<sup>6</sup> The Worldwide Environment of Cardiovascular Disease: Prevalence, Diagnosis, Therapy, and Policy Issues: A Report from the American College of Cardiology. JACC Vol. 60 Suppl S, No. 25. <http://dx.doi.org/10.1016/j.jacc.2012.11.002>





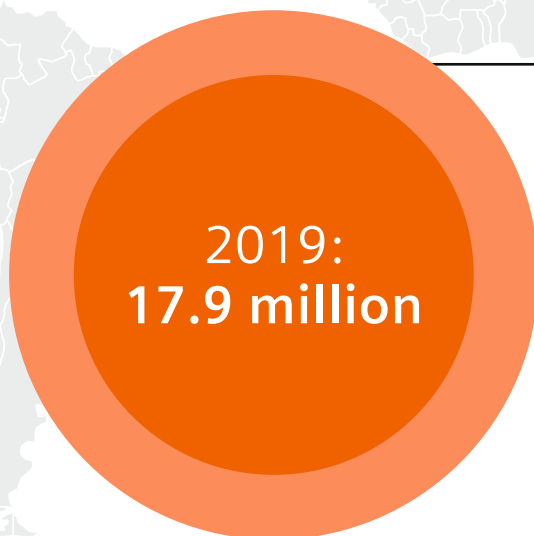
### Obesity<sup>1</sup>

2016:  
overweight people (18+): 1.9 billion  
· 39% of men  
· 40% of women  
  
obese people (18+): 650 million  
· 11% of men  
· 15% of women



### Hypertensions<sup>2</sup>

1.13 billion  
people worldwide  
have hypertension



### Deaths caused by CVDs<sup>3</sup>

2016:  
17.9 million = 31%  
of all global deaths



### Growth in cardiovascular procedures<sup>4</sup>





# **Sensis Vibe tunes up, blends in, pays off**

Cath labs and hybrid ORs are busy places where many things are happening at once. Even if a procedure is routine, all moves need to be synchronized, and the entire team has to be on the same wavelength. Documenting the procedure must blend into this flow.

Imagine a documentation system so anticipative it feels like a member of your team. A system that catches the Vibe and lets you handle administration along the way – without missing a beat.

This system is Sensis Vibe.

Sensis Vibe® is the vital core where all events, decisions, measurements, and data from your procedures are captured. It reduces administrative effort and standardizes documentation and reporting across interventional entities. With this next software generation of Sensis Vibe we have implemented a comprehensive IT security concept to increase your cath lab security level. Sensis Vibe blends into the rhythm of your interventional department and tunes up your workflow efficiency.

# Sensis Vibe – tunes up

**In the cath lab you have to continuously balance critical duties in order to ensure patient safety and document the course of the procedure for follow-up care and administrative purposes.**

**Sensis Vibe's core principle is ease of use at every step of the procedure. From the one-stop patient registration between Sensis and ARTIS to adaptable workflow support programs, Sensis Vibe helps you keep the focus where it truly belongs – on the patient.**

- Get up to speed quickly with the intuitive user interface and FlashDoc® functionality
- Customizable workflow support programs with configurable activities to help standardize procedures
- Profit from clinical decision indices like FFR, Resting Pd/Pa, DFR™\* and SAI
- Enjoy smart, automated, and adaptable data validation for complete and consistent reports at the end of the procedure
- Integrate Sensis Vibe in the hybrid OR and rely on the same recording and documentation system in the hybrid OR and cath lab



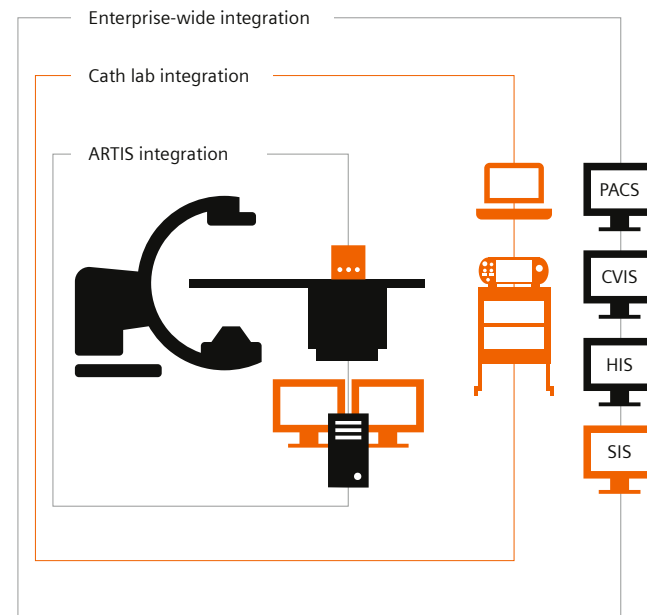
*\*In addition DFR™ is a Boston Scientific algorithm and refers to dPR.*

# Sensis Vibe – blends in

As an IT administrator you need to ensure data consistency, system stability, and interoperability. To support you in meeting the evolving demands for standardization and accountability, Sensis Vibe smoothly blends in with your IT infrastructure and easily adjusts to individual needs. And when it comes to reliability you can simply count on your Sensis Vibe system.

## Smooth, reliable, and secure

- Ensure reliable data transfer to various hospital IT systems – Sensis Vibe uses the following interface languages: ASCII flat file, XML, DICOM, and HL7
- Easily adapt documentation to your requirements with the highly tailored Sensis Information System (SIS) database
- Speed up workflow at Point of care: with automatic receipt of ACT values by using HL7 interface
- Update infrastructure to the future proof Windows 10 to be aware on: Security – Vulnerability and incident management – Whitelisting
- Enable institution-wide integration with multi-lab connectivity
- Reduce billing errors through seamless information integration with billing systems
- Prevent data loss and downtime with Sensis Vibe's new local cache
- Maximize utilization and ensure extended data security with Sensis Vibe's virtual server appliance



# Sensis Vibe – pays off

**As a health service provider you need to manage costs and revenue to sustain state-of-the-art patient care for today and tomorrow. Sensis Vibe positively impacts your bottom line in many ways, from speeding up data management to showing you the big picture of your interventional floor's efficiency.**

## **Maximize your efficiency**

- Improve efficiency with Sensis Vibe's optimized documentation process
- Enable interventional lab sharing among disciplines with the Sensis Vibe/Arrhythmias combo solution
- Get the full picture for analyzing, controlling and benchmarking interventional floor statistics
- Protect your cash flow by providing complete and accurate procedure data for billing
- Benefit from new features and workflow improvements over the entire product lifecycle with Sensis Vibe's comprehensive upgrade opportunities



# Sensis Vibe – cyber security

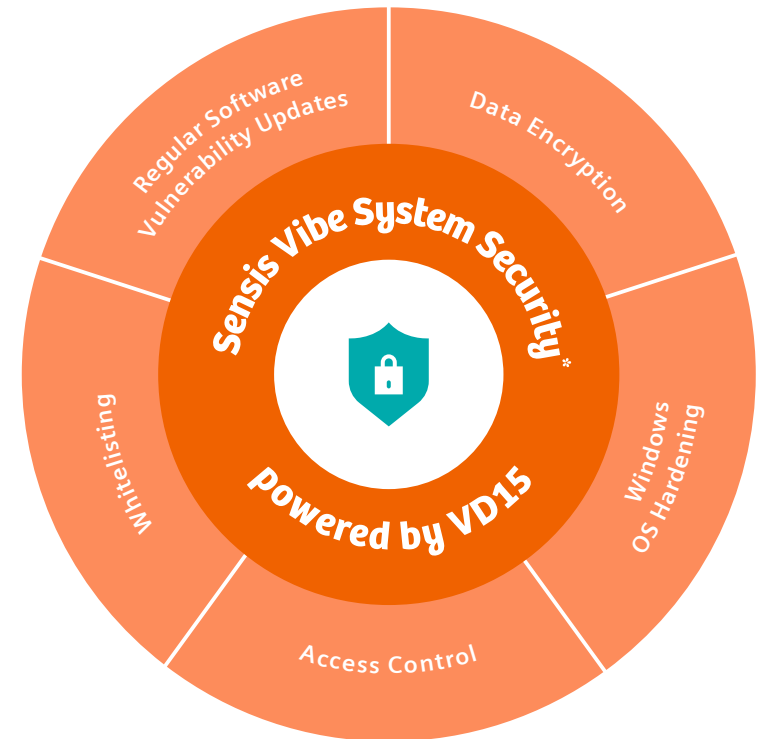
**Every day you take care of your patients in the cath lab.  
Are your most important assets – your sensitive patient data – also well protected?**

Digitalization improves workflow and increases efficiency. But is also prone to cyberattacks which pose a growing threat – particularly for healthcare providers. Major cyber risks are patient harm or data loss, disrupted operations, liabilities, and loss of reputation. Are your most important assets – your sensitive patient data – well protected?

With this next software generation of Sensis Vibe, we implemented a comprehensive IT security concept to increase your cath lab security level. While you treat your patient, Sensis Vibe automatically takes care of your cyber security!

It is based on updated software components, regular hotfixes, data encryption, Windows OS hardening, access control and whitelisting. All these features together make up the new security concept. This helps:

- Protecting your patients' procedure data
- Ensures that personal data are secure
- Safeguards finances and reputation

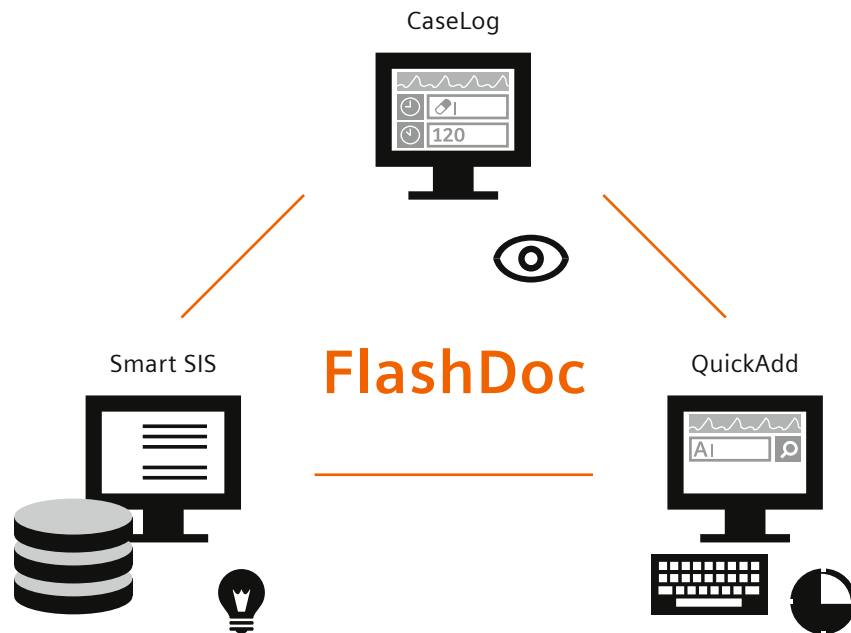


\*Not all security features are available as default "compatibility" mode.  
For the "enhanced secure" mode, all clients and server systems must run on VD15.  
Future availability of "enhanced secure" mode cannot be guaranteed.

# FlashDoc

Sensis Vibe's user interaction concept prominently features FlashDoc, a completely redesigned procedure data documentation philosophy. Targeting optimal ease of use, FlashDoc includes three core components – QuickAdd®, CaseLog, and an even smarter version of the Sensis Information System (Smart SIS) – all embedded in an intuitive user interface.

- **QuickAdd** enables simplified data entry using auto-completion, which speeds up procedure data capture.
- **CaseLog** offers an optimized, time-stamped overview of all hemodynamic/electrical events and other occurrences recorded or manually captured.
- **Smart SIS** helps to create a consistent record with individually defined validation rules that verify entries and measurements automatically.



# Advanced applications

## SAI

Sensis Vibe offers special features for advanced users, such as automated calculation of the systolic area index (SAI).



## FFR, DFR<sup>TM</sup>\* and Resting Pd/Pa

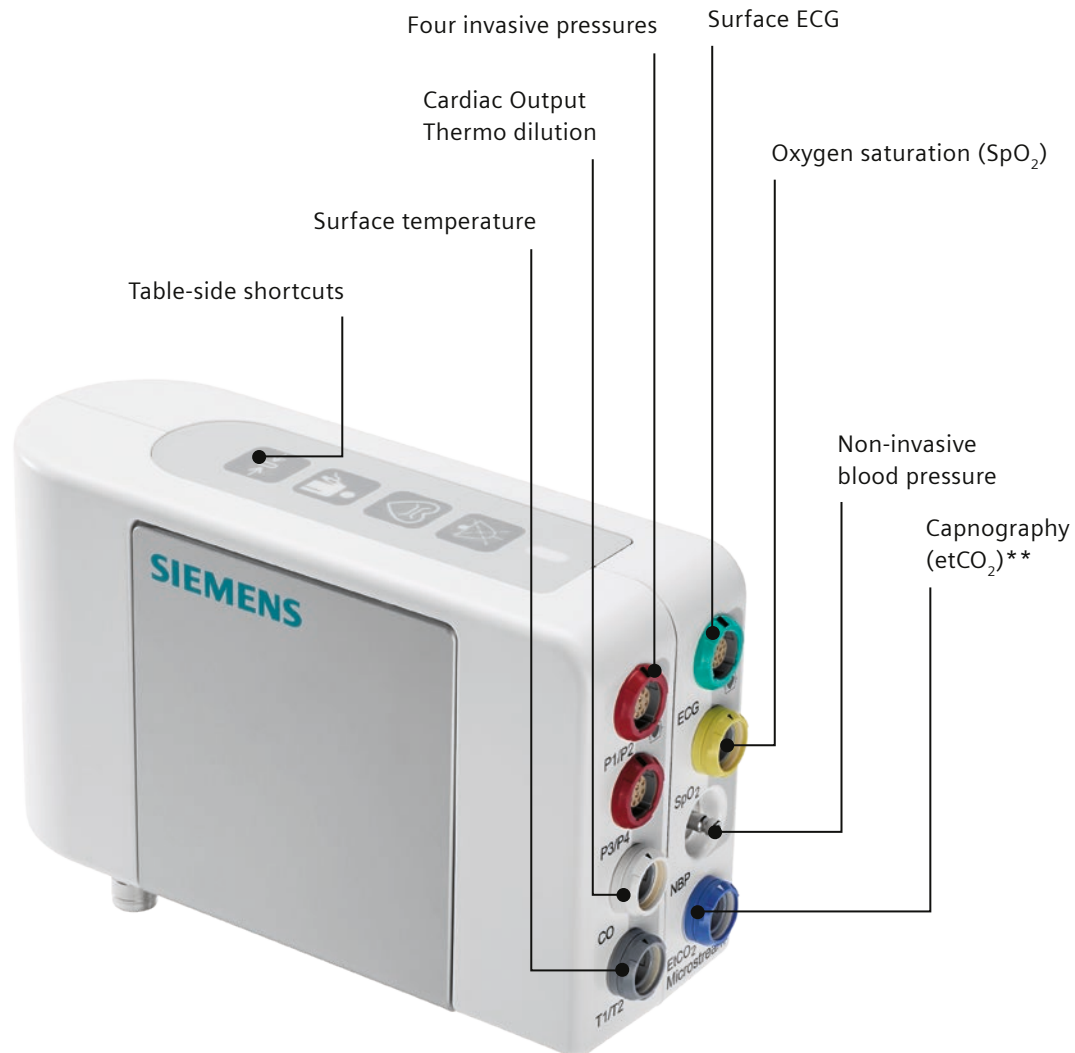
Sensis Vibe enables flexible measurement of the hyperemic and non-hyperemic assessment via Fractional Flow Reserve (FFR), Diastolic hyperemia – Free Ratio (DFR<sup>TM</sup>\*) and Resting Pd/Pa.

For FFR and Resting Pd/Pa integrating devices from Abbott Medical, Boston Scientific, OpSens, and ACIST microcatheters are applicable. The new algorithm DFR<sup>TM</sup> – powered by Boston Scientific – makes the flexibility story complete. To optimize your customized workflow, all resulting data (numerical values and waveforms) are stored into the Sensis Vibe database and can be embedded into the final reports.



\* In addition DFR<sup>TM</sup> is a Boston Scientific algorithm and refers to dPR.

# HemoBox



## Sensis Vibe for hemodynamics

The small and compact signal input unit for hemodynamic recording reduces the hardware impact in the examination room by 82 percent\* and offers flexible mounting options.

## Hybrid OR integration

Sensis Vibe's HemoBox also meets the hygienic standards of a surgical environment (IPX4 compliance). This enables you to offer fully integrated care when treating a previous patient in a cath lab and hybrid OR by providing the same range of invasive signals in both environments. With Sensis Vibe, data and measurements from previous interventions are now natively available in the hybrid OR.

## A scalable solution for hemodynamics and arrhythmias

Sensis Vibe can be extended to a combined system featuring both hemodynamic and arrhythmias acquisition. The ComboBox is flexibly configurable and delivers pristine signal quality.

\* Compared with Sensis VC12 hemo hardware

\*\* Option

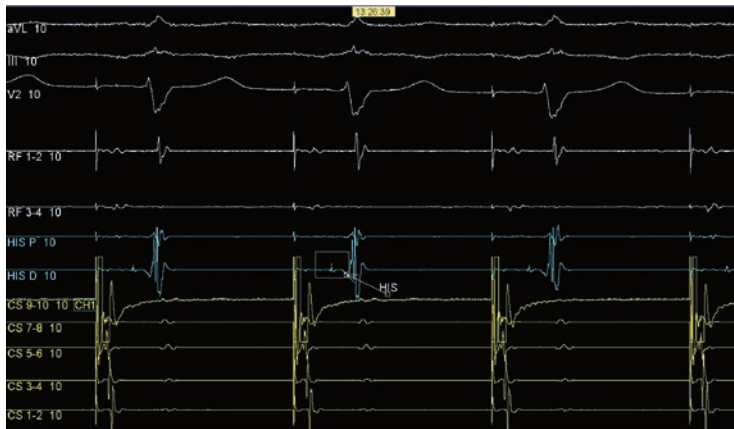
# ComboBox for arrhythmias

Further advantages: Since you need only one system for both hemodynamics and arrhythmias, you need less space, you have only one interface resulting in less training, you have all data in one database, and you can minimize your hardware investments.

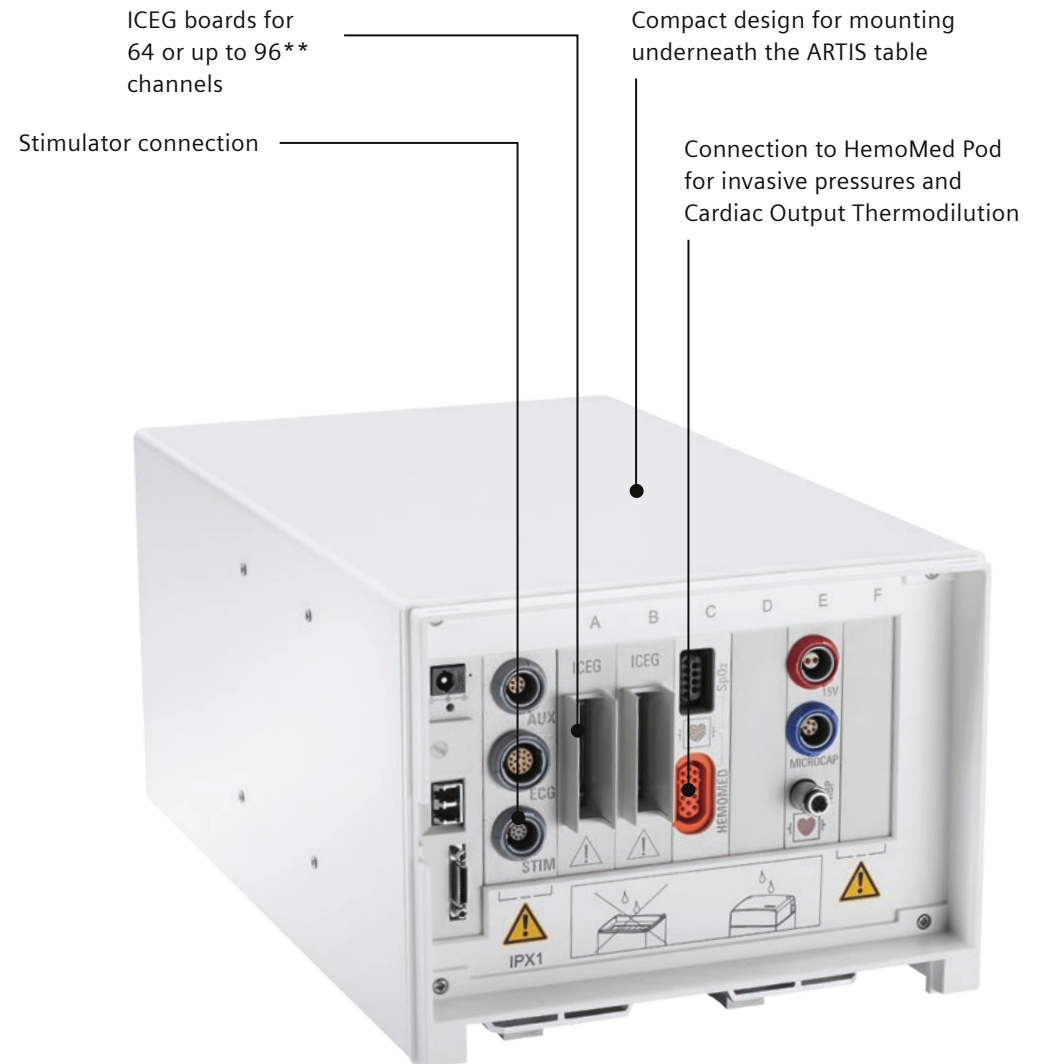
During complex arrhythmias procedures, Sensis Vibe serves as the central puzzle piece connecting key therapeutic equipment in the lab: the angio system, stimulators, ablaters, and mapping system.

Sensis Vibe also grows with your arrhythmias lab as it lets you easily add a further ICEG board to expand your clinical capabilities in arrhythmias.

## Sharp and clear signals



Courtesy of Karolinska University Hospital, Huddinge, Stockholm, Sweden





# Sensis Vibe – interacts seamlessly



## ARTIS systems

Sensis Vibe is fully integrated with all ARTIS interventional angiography systems via a bidirectional interface. The ARTIS systems offer a broad portfolio of interventional imaging devices to cover the clinical needs in cardiology and electrophysiology, as well as in interventional radiology and surgery.



## Hybrid OR

Due to its IPX4 compliance, Sensis Vibe's HemoBox meets the surgical requirements for a hybrid OR. If you plan to invest in a hybrid OR, Siemens Healthineers is the right partner. Our experts will draw on our extensive experience in planning and installing hybrid ORs and hybrid labs. They will take into account your hospital's existing infrastructure and design a solution that best suits your needs.



## Advanced system support

Via our secure data link Siemens Healthineers Remote Service (SRS), Sensis Vibe can be connected to the service experts in our Customer Care Center. Via SRS, the performance and condition of your equipment can be monitored in real time. SRS makes a broad range of proactive and interactive services available – including fast error identification, remote repair and software updates, preventive maintenance, and collaboration services.

# Why Siemens Healthineers?

At Siemens Healthineers, we pioneer breakthroughs in healthcare. For everyone. Everywhere. Sustainably. As a market leader, we want to advance a world in which breakthroughs in healthcare create new possibilities with a minimal impact on our planet. We've been pushing the boundaries in medical technology for more than 125 years. By consistently bringing innovations to the market, we enable healthcare professionals to innovate personalized care, achieve operational excellence, and transform the system of care.

With the unique combination of our strengths in patient twinning<sup>1</sup>, precision therapy, as well as digital, data, and artificial intelligence (AI), we are well positioned to take on the greatest challenges in healthcare. We will continue to build on these strengths to help overcome the world's most threatening diseases, enable efficient operations, and expand access to care.

Our portfolio, spanning in vitro and in vivo diagnostics to image-guided therapy and cancer care, is crucial for clinical decision-making and treatment pathways. We are committed to improving healthcare access for all, limiting our environmental impact as we pioneer breakthroughs, and engaging our diverse Healthineers to achieve this impact on a global scale.

Motivated by our purpose and guided by our values, we are building an inclusive culture, where we embrace diversity in all its forms. We are a team of more than 71,000 Healthineers in over 70 countries passionately pushing the boundaries of what is possible in healthcare to help improve the lives of people around the world.

<sup>1</sup>Personalization of diagnosis, therapy selection and monitoring, after care and managing health.

On account of certain regional limitations of sales rights and service availability, we cannot guarantee that all products included in this brochure are available through the Siemens Healthineers sales organization worldwide. Availability and packaging may vary by country and are subject to change without prior notice. Some/All of the features and products described herein may not be available in the United States or other countries. The information in this document contains general technical descriptions of specifications and options as well as standard and optional features which do not always have to be present in individual cases.

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Not all features shown in this brochure are necessarily standard and available in all countries. The configuration of display, keyboard and mouse shown in this brochure is only a room example. A similar or alternative configuration can be delivered.

Sensis Vibe VD15 is currently under development; it is not for sale in the USA. Its future availability cannot be guaranteed.

Sensis Vibe products/features (mentioned herein) are not commercially available in all countries. Their future availability cannot be guaranteed.

dPR is renamed to DFR and a trademark of Boston Scientific.

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