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# Different needs. Always Sensis.

A recording and information system that grows with your cath lab.

Answers for life.

# Growing with your cath lab needs: Sensis.

Coronary heart diseases are among the most common diseases today. To confidently master your daily challenges, you need a cath lab environment with the latest technology that supports fast, precise, and flexible workflows – and is cost-efficient at the same time.

Our Sensis recording and information system helps you **speed up** your diagnostic and therapy processes and increase efficiency. You can also **link up** Sensis with your cath lab environment and beyond. What's more, you get the recording and information system that exactly fits your cath lab needs. Should your requirements change, you can simply **scale up** your Sensis. Sensis is a safe investment that can be flexibly adapted to your clinical requirements, today and tomorrow. **Or in short: Different needs. Always Sensis.**







# Different needs.

Always Sensis.

## Speed up

- **Increased diagnostic confidence** – through excellent signal quality and advanced tools like integrated FFR
- **Support for a wide variety of cath lab exams** – through automated calculations and full vital signs monitoring
- **Structured data documentation and automated report generation** – with the Sensis Information System (SIS)

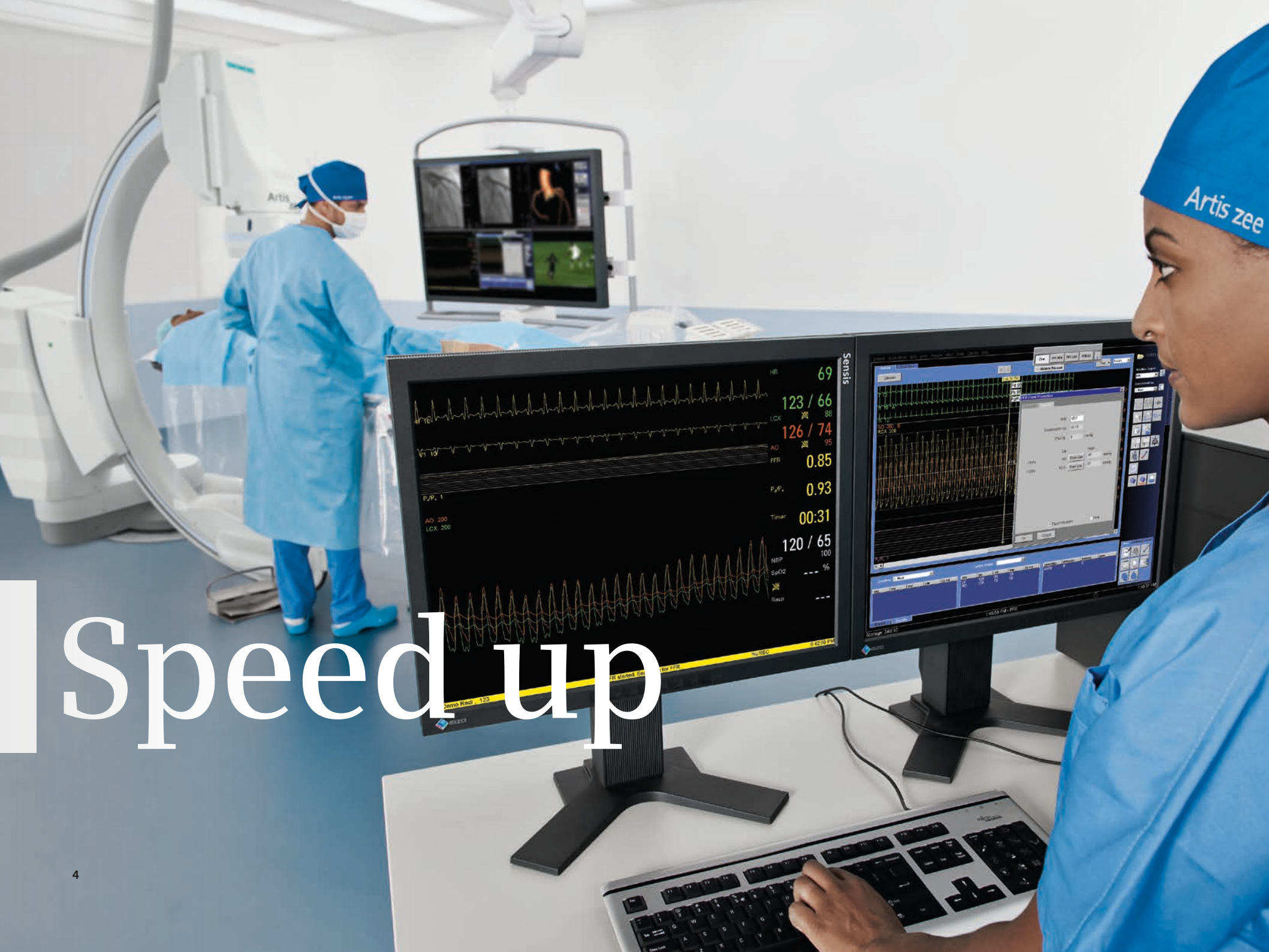
## Link up

- **Efficient data exchange and dose report** – via bidirectional communication with Artis imaging systems
- **Smooth workflow even with limited staff** – with the Artis tableside control or the Sensis nurse workstation
- **EP lab integration** – through optional EP application
- **Easy integration into your hospital information system** – for a multi-lab environment

## Scale up

- **Extended application spectrum** – through space-saving combination of hemodynamics and EP
- **Enhanced documentation and reporting capabilities** – by connecting different workstations
- **Smart diagnostic tools** – for example for constrictive pericarditis

Not all features shown in this brochure are necessarily standard and available in all countries.



# Speedup





### Efficient measurements

Whether right heart catheter, congenital or coronary interventions – Sensis helps improve diagnostic confidence through excellent signal quality and reliable measurements. You benefit from automated calculations of gradients, shunts, valve areas, and resistances. An integrated FFR option allows you to quickly perform FFR measurements during a procedure. You can use either St. Jude Medical or Volcano pressure wires, and Sensis displays and calculates the FFR ratio. All resulting data, values, and waveforms are automatically stored in the Sensis database and can be easily embedded into your reports. This allows you to concentrate on what really matters: your patients.

### Intuitive user guidance

Sensis offers many features that facilitate your routine. Customizable workflow support programs with configurable activities help you standardize procedures – without sacrificing the flexibility to adapt to individual requirements any time. You can benefit from efficient

workflows and a constant quality level, even with a rotating staff. In addition, Sensis makes complex measurements like cardiac output thermodilution easy. Sensis displays the temperature curve in real time and an injection symbol when it's ready for the next injection, offering intuitive guidance for the right timing.

### Automated report generation

Report generation has never been easier and more time-efficient. In combination with the optional Sensis Information System (SIS), Sensis supports automatic generation of multiple reports in different layouts. So when your patient leaves the lab, your report is ready to be sent. You can also add X-ray images, graphics of the coronary tree, congenital heart pictures or a CARTO Heart Map to illustrate the procedure. Sensis can even automatically e-mail the reports to predefined addresses.



Flexible measurement of FFR through integrated functionality on Sensis and St. Jude Medical or Volcano devices (sold separately by St. Jude Medical/Volcano).



The CO temperature curve is displayed in real time on Sensis' live display in the examination room.

### Smart integration with Artis

The Sensis amplifier is seamlessly integrated into the Artis table – for free patient access and easy cleaning. From patient registration to reporting, Sensis is your central point of data handling. Bidirectional communication with your Artis imaging system allows automatic exchange of demographic patient data. In addition, you can quickly obtain dose values and X-ray images for comprehensive reporting. The Artis table-side touch-screen console offers remote control of the main recording functionalities right at your fingertips. Or let your staff control recordings, measurements or vital signs at the Sensis nurse workstation in the examination room. This gives you even more flexibility especially in emergencies, on weekends or during night shifts.

### Integrating the EP lab

Besides hemodynamics, Sensis optionally supports electrophysiological (EP) procedures. The high-quality signals of up to 128 intracardiac electrode inputs increase diagnostic reliability. Advanced analysis tools

allow you to conveniently compare the clearly displayed waveforms. The Holter functionality lets you navigate faster and offers an improved overview during longer EP studies. Furthermore, Sensis provides interfaces to third-party EP systems like stimulators, ablators or mapping systems – thus integrating all relevant data on your Sensis.

### Multiple labs connected

Integrate your cath lab into your clinical environment. To set up a multi-lab solution, simply use Sensis as a server – i.e. as an integrated database for all Sensis acquisition systems. This means you can access and analyze information from all connected labs, post-processing or reporting workstations, e.g. for statistical reports. All information acquired during a procedure can also be accessed by syngo® Dynamics in case you additionally require departmental reporting and multi-modality image archiving. Integration into your hospital information system (HIS) can be realized via HL7, DICOM or ASCII standards.



With the Sensis nurse workstation, the nurse can assist the physician in the lab and additionally control e.g. vital sign parameters.



The new slim-line amplifier integrated in the Artis table base allows signal input and real-time processing.



# Link up





# Scale up



## A scalable solution for hemodynamics and EP

With Sensis, you decide what you really need. You can choose between a full version and the lean version, Sensis Lite. With both, you can run advanced hemodynamic applications and, optionally, EP applications. Sensis Lite can additionally support basic EP examinations with up to 32 IECG channels, and the full combined Sensis version including hemodynamics and EP enables advanced EP procedures with up to 128 IECG channels. Various interfaces to stimulator, ablator, imaging, and mapping systems help increase efficiency. Further advantages: since you need only one Sensis for both hemodynamics and EP, 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.

### Customized documentation and reporting options

Whether stand-alone or multi-lab, Sensis meets your documentation and reporting requirements. In a multi-lab environment, Sensis can support additional work-



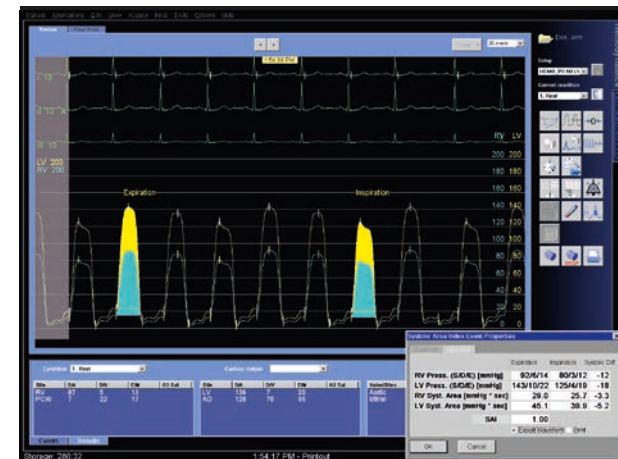
Flexible and comprehensive reporting, using customized report templates at separate Sensis workplaces.

places such as the reporting, post-processing or nurse workstation. You also gain access to numerous tools, including Coronary Tree Illustrator, Heart Picture Illustrator or Statistics Manager. Moreover, you can use data from other connected labs for more comprehensive statistical analyses.

### Advanced diagnostic support

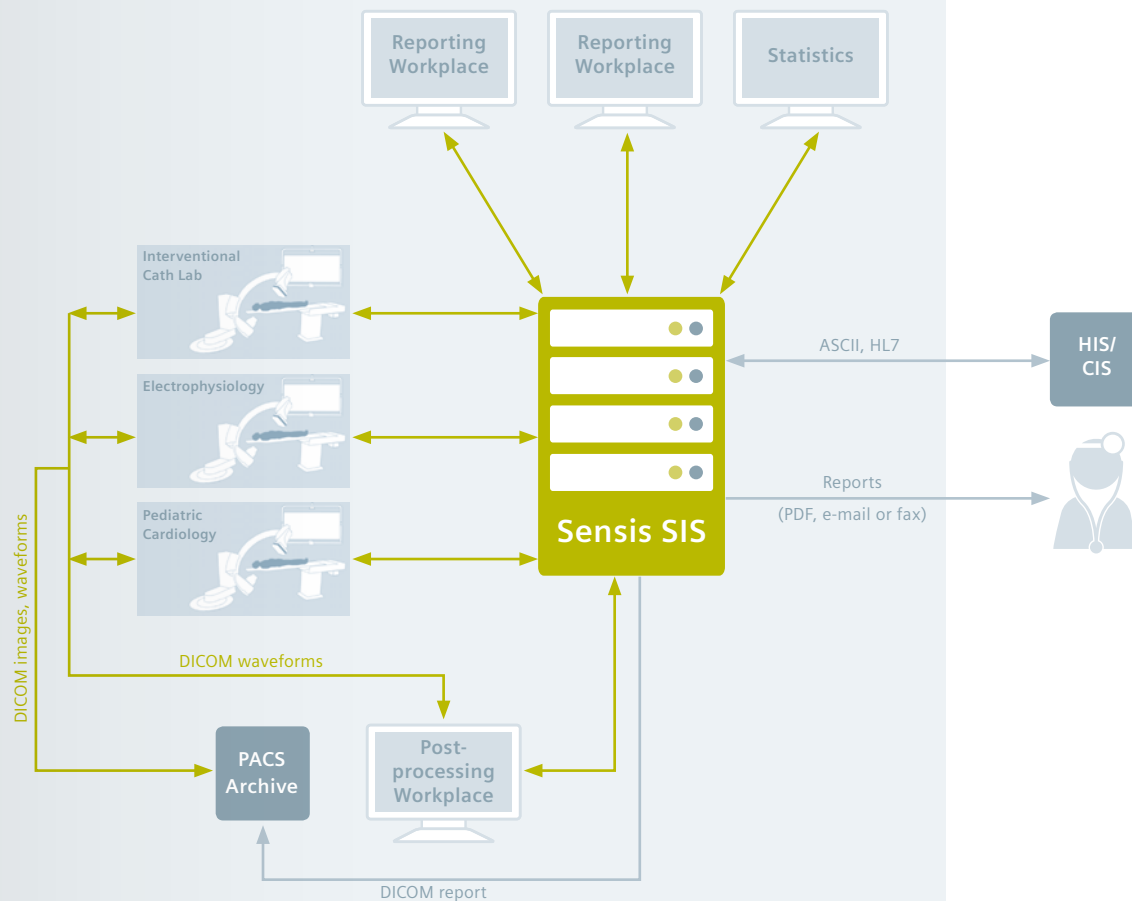
Sensis offers special features for advanced users, such as automated calculation of the systolic area index (SAI). According to a 2008 study\*, SAI is the method of choice for the diagnosis of constrictive pericarditis compared to other diagnostic techniques. So far, the calculation of this index has been time-consuming as area measurements and calculations had to be performed manually. With the SAI option, Sensis now offers a very efficient method to diagnose and document constrictive pericarditis.

\* Constrictive Pericarditis in the Modern Era: Novel Criteria for Diagnosis in the Cardiac Catheterization Laboratory, Deepak R. Talreja et al, J. Am. Coll. Cardiol. 2008; 51; 315-319.



Automated calculation of systolic area index (SAI) to diagnose constrictive pericarditis.

# Multi-lab or single lab?



## A flexible and scalable solution

Does a single lab solution suit your needs or do you require your cath lab to be integrated into a multi-lab environment? Do you want a dedicated hemodynamic or a combined hemodynamic and EP solution? With the scalable Sensis, you stay completely flexible right from the start.

Pre- and postprocessing can be performed simultaneously on multiple remote workstations both inside the labs and outside in holding and recovery areas, or in a physician's or administrator's offices.

If you decide to expand from pure hemodynamics to electrophysiology or vice versa, you can easily upgrade Sensis to a solution that supports both, securing your investment well into the future. The open architecture of our Sensis platform grows with your needs.

The core of a Sensis multi-lab setup is the Sensis information system (SIS). Its flexible SQL database allows storage of data from all connected Sensis recording systems for your reporting. This includes all measured data, manually entered information like medication, material as well as procedure comments, Artis X-ray image snapshots, and waveform images. Various tools support structured documentation of administrative and procedural data as well as the creation of customized reports.





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# Sensis

A flexible recording and information system for your cath lab, Sensis helps make your routine easier and more efficient. It enables a wide variety of hemodynamic measurements as well as advanced electrophysiological recordings. Sensis can be used as a single-lab solution or integrated into a multi-lab environment.



	Sensis
Cath lab solution	Can be customized from single-lab to multi-lab solution
Documentation and reporting using SIS	SQL database, MS Word
Integration into HIS	Via ASCII flat file, DICOM Worklist or HL7
Hemodynamic applications	For all cath lab exams
EP applications	With up to 128 ICEGs
Sensis workplaces	Nurse workstation, post-processing and reporting workplaces
Advanced interfacing	Material management systems, Dräger Infinity
Graphical editors	Congenital Heart (HPI), Coronary Tree (CTI)

Not all features shown are necessarily standard and available in all countries.

A woman in blue scrubs and a blue headband with 'Qzen' written on it is smiling. In the background, there are medical monitors displaying various vital signs and waveforms. The Siemens logo is in the top left corner.

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# Sensis Lite.

The lean, cost-efficient version of our flexible recording and information system for your cath lab.

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# Sensis Lite

Sensis Lite is a lean and cost-efficient version of Sensis. It enables hemodynamic measurements for all kinds of cath lab examinations and provides advanced tools for complex interventions. Of course, you can scale up your Sensis Lite to Sensis at any time should requirements in your cath lab change.



Cath lab solution

Documentation and reporting using SIS

Integration into HIS

Hemodynamic applications

EP applications

Sensis Lite

Stand-alone

SQL database, MS Word

Via ASCII flat file or DICOM Worklist

For all cath lab exams

With up to 32 ICEGs

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