eppendorf

VisioNize® Lab Suite Product Guide

You and Your Lab – Connected.

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Monitor Your Laboratory Equipment in Real Time and Receive Notifications Straight to Your Phone when Issues Occur

VisioNize® Lab Suite ensures you access to critical parameters of your connected lab devices to ensure the safety of your samples and the reliability of your research. The user-friendly platform provides easy, quick access to all relevant data so you can react rapidly to avoid severe problems in the lab.

Remote monitoring

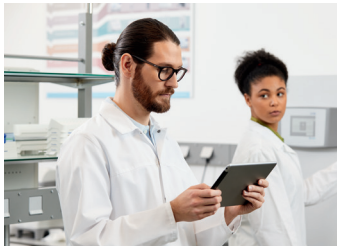
> Monitor connected lab devices and track status, parameters, and performance.

Real-time-notification

> Get alert and event notifications to address issues quickly.

Easy Device data export

> Export device parameter, event data, and any user interactions.



Alert Management & Response-Based Escalation

> Track all alert acknowledgements with time-stamped data logs.
> Define escalation schemes to indiviual or multiple recipient groups based on lab presence.

Connectable Devices

Do you already have a new Eppendorf device with a touch screen?:

Then you're ready to start VisioNize Lab Suite.Out-of-the-box connectivity with VisioNize onboard devices:

Eppendorf ULT Freezers
CryoCube® F740i
CryoCube® F740hi
CryoCube® F740iw
CryoCube® F740hiw

Eppendorf CO_2 Incubators
CellXpert® C170i

Eppendorf Shakers
CellXpert® CS220
Innova® S44i*

**only compatible after serial number S44IJH302546*

Eppendorf Cyclers
Mastercycler® X50 series*
Mastercycler® X40

*Mastercycler X50 eco not supported without Mastercycler X50 master device

No VisioNize® onboard devices?
Don't worry, easily connect with our connect ware VisioNize box 2 or VisioNize sense equipment*:

VisioNize box enabled

The VisioNize box 2 and VisioNize box 2 cable acts as a hardware hub and works as a translation system enabling data collection of the device data in VisioNize Lab Suite.

VisioNize sense

Connect your non-Eppendorf devices to the VisioNize Lab Suite. With VisioNize sense monitor and sensors you can monitor, e.g., ambient temperature, humidity, pressure & light, and temperature of any device (including ULT freezers) within the range of +60 to -90 °C.

**Note: VisioNize sense equipment and VisioNize box 2 not available worldwide. Please contact us for local availability.*

VisioNize box enabled devices

Eppendorf Centrifuges
Centrifuge 5910 R
Centrifuge 5424 R
Centrifuge 5425
Centrifuge 5425 R
Centrifuge 5427R

Eppendorf CO_2 Incubators
New Brunswick S41i
CellXpert® C170
Galaxy 48R

Eppendorf Shakers
Innova® 40/40R
Innova® 42/42R
Innova® 43/43R
Innova® 44/44R

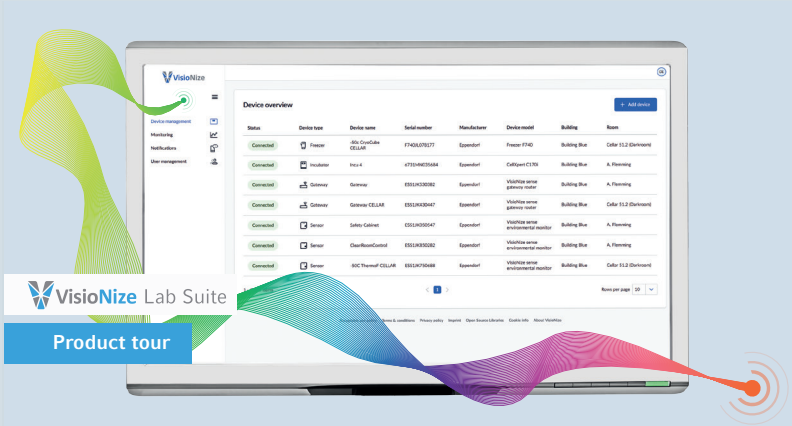
Eppendorf Thermomixer
Eppendorf ThermoMixer C, F0.5, F1.5, F2.0, Fp
Eppendorf Thermostat C

Eppendorf Cyclers
Mastercycler® Nexus
Mastercycler® Nexus Gradient
Mastercycler® Nexus flat
Mastercycler® Nexus X2
Mastercycler® nexus GX2
Mastercycler® Nexus SX1
Mastercycler® Nexus GSX1

Eppendorf ULT Freezer
CryoCube® F440n
CryoCube® F440h
CryoCube® F570

Eppendorf ULT Freezer
CryoCube® F570h
CryoCube® F570hw
CryoCube® FC660
CryoCube® FC660h
CryoCube® F740
CryoCube® F740h
Innova® U101
Innova® U535
Innova® U570
Innova® U725
Innova® U725-G
Innova® C760
Innova® C585
Premium U410
Premium U570
HEF U410

Experience the VisioNize Lab Suite



Learn more about the benefits of switching to a connected digital lab. Our specialists will give you insights into each service of the VisioNize Lab Suite.

Join product tour:

Eppendorf digital platform – Demo of the VisioNize Lab Suite

Features of VisioNize Lab Suite

Real-Time Monitoring
Monitor your devices remotely and track device status, parameters (e.g. temperature), and history from anywhere

Alert Management
Track all alert acknowledgements with time-stamped data logs

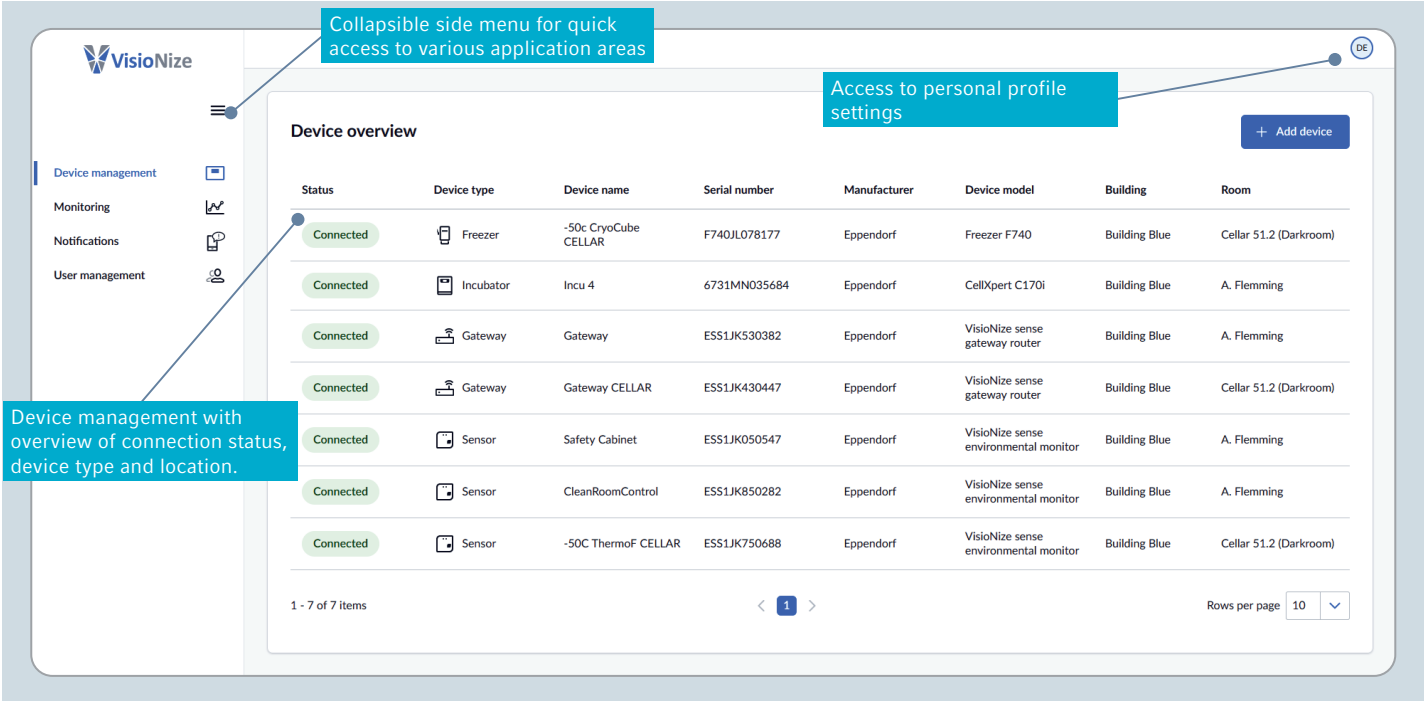
Easy Data Access
Export device and event data, as well as logged user interactions

Instant Notifications
Receive alert and event notifications and quickly address any issues

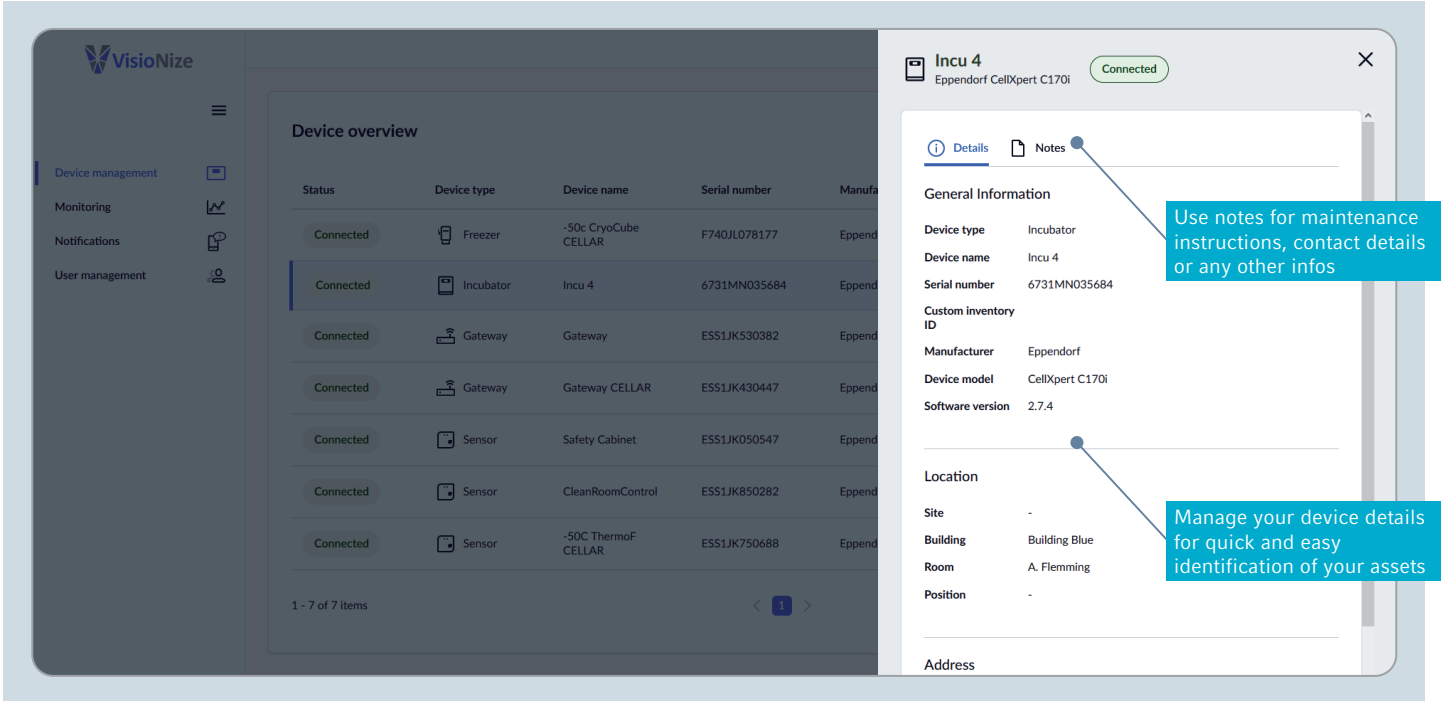
Device Connectivity
Connect and monitor all your temperature-controlled devices including 3rd party with VisioNize sense monitoring kit

Response-Based Alert Escalation
Define escalation schemes to individual or multiple recipient groups based on presence in the lab

Intuitive User Interface Optimized for Diverse Laboratory Needs



Manage your Lab Assets with Ease



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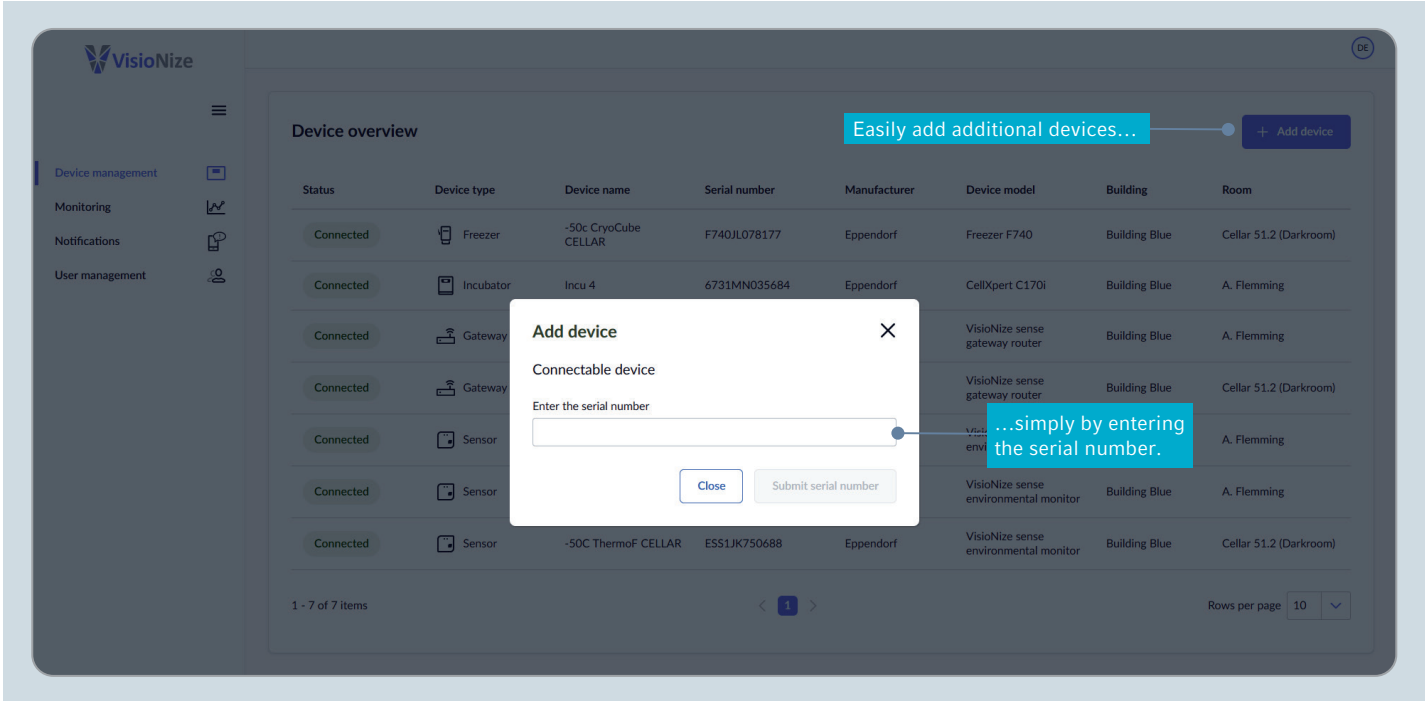
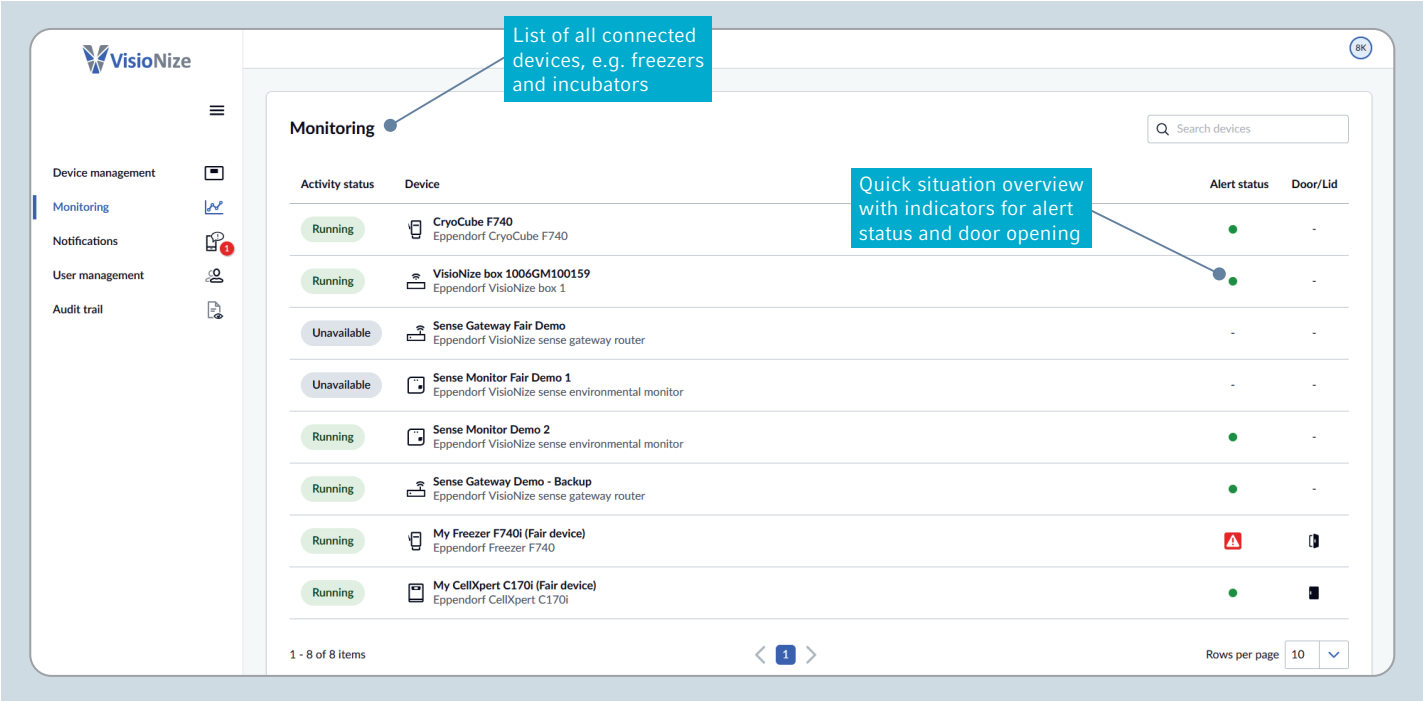


More Peace of Mind with Real-Time Device Monitoring & Analysis



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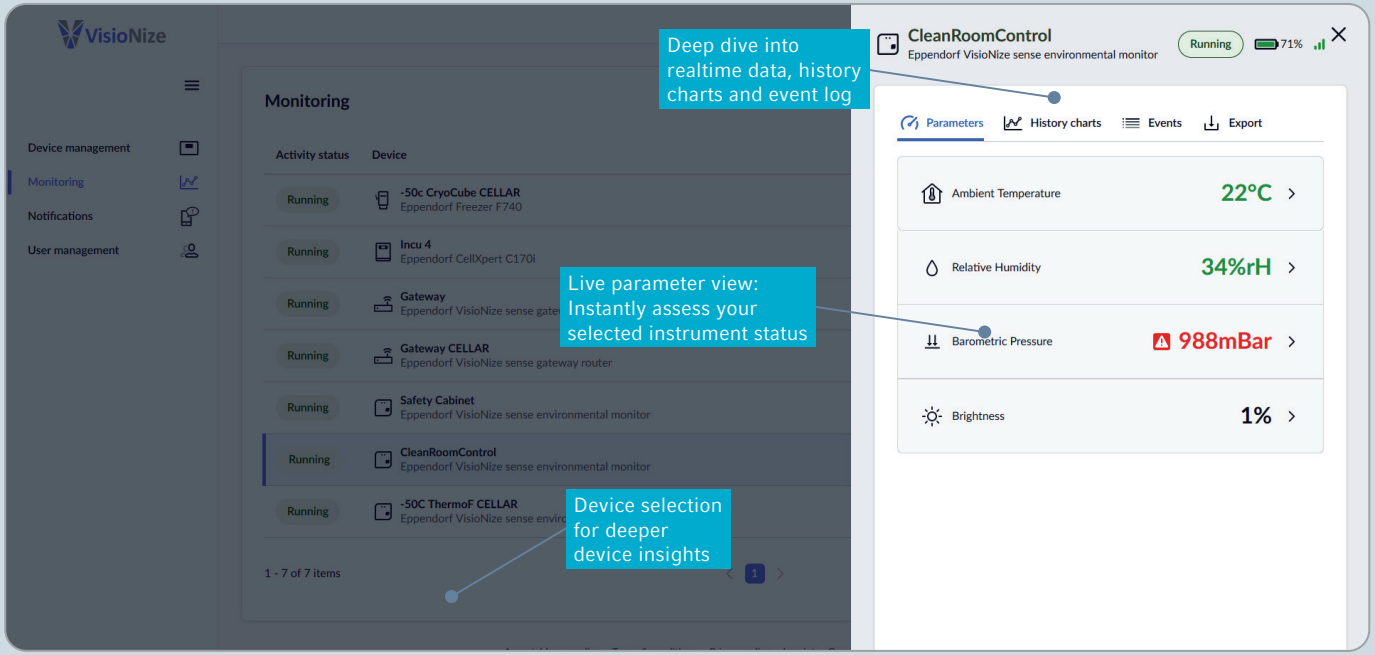

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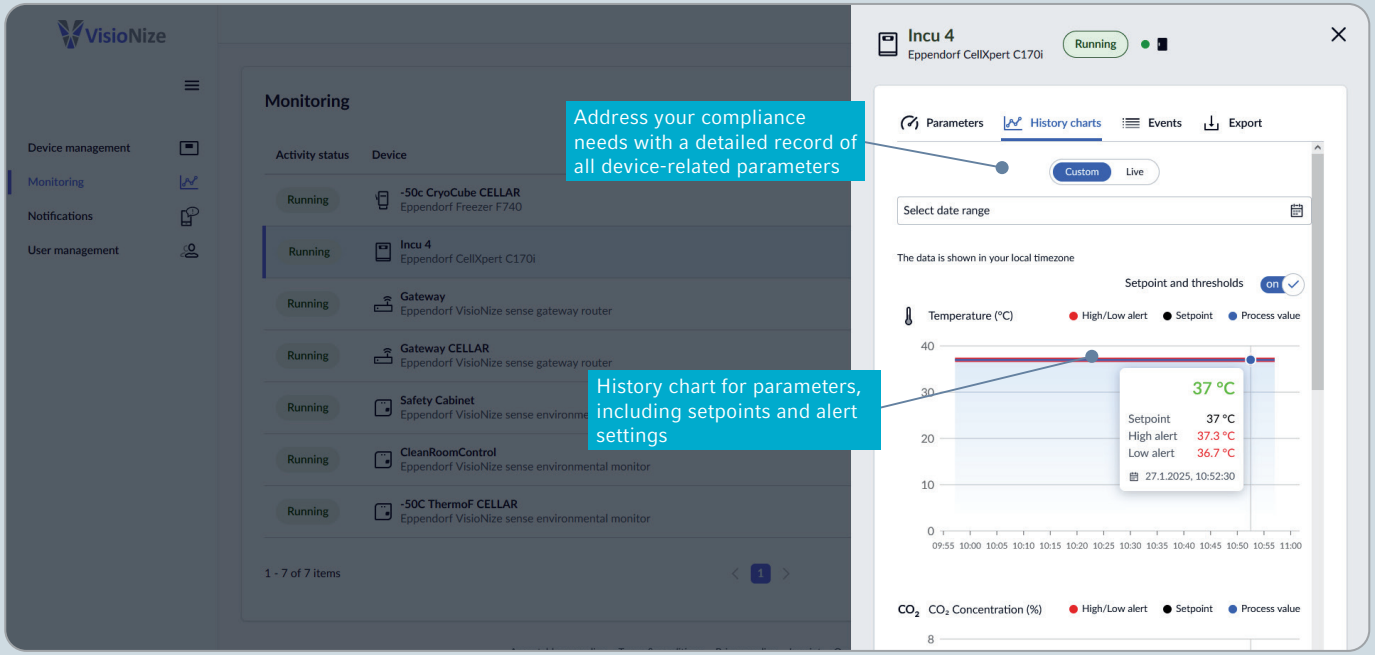

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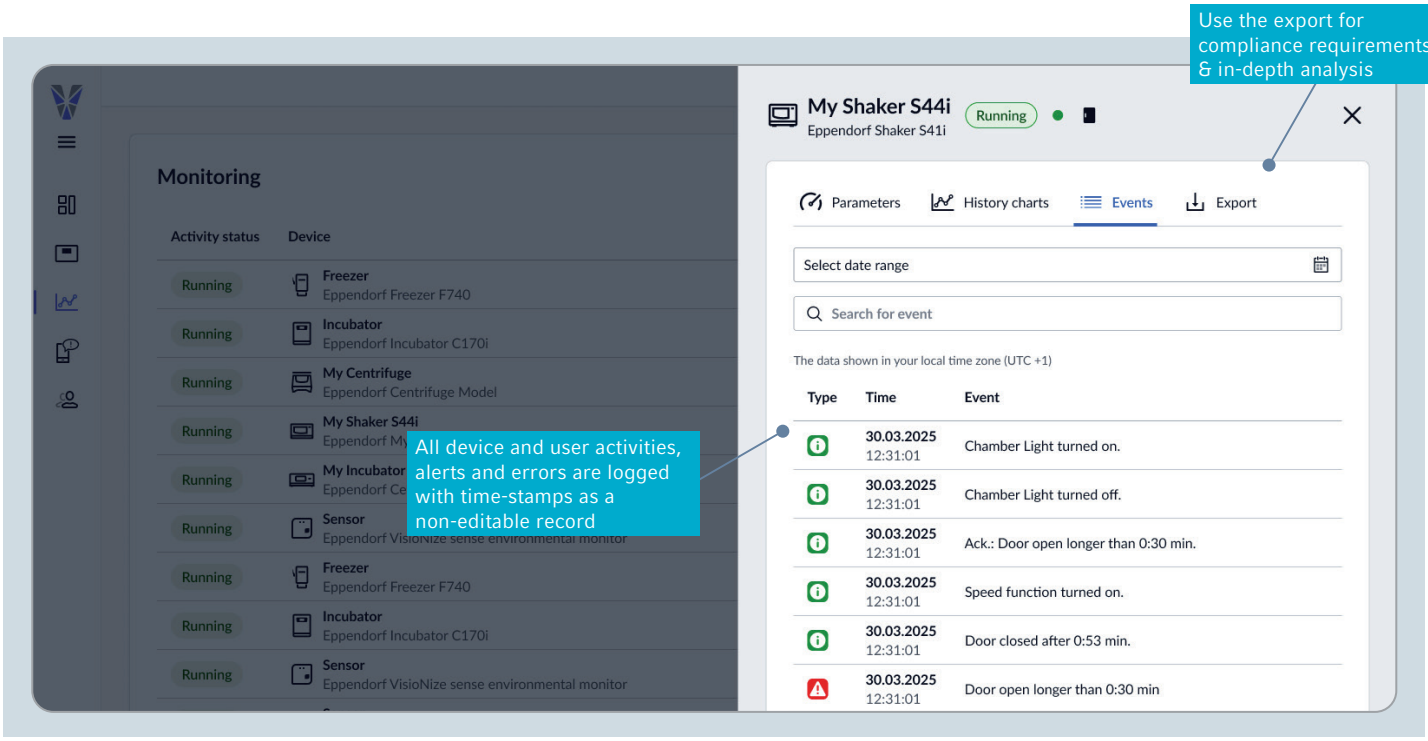
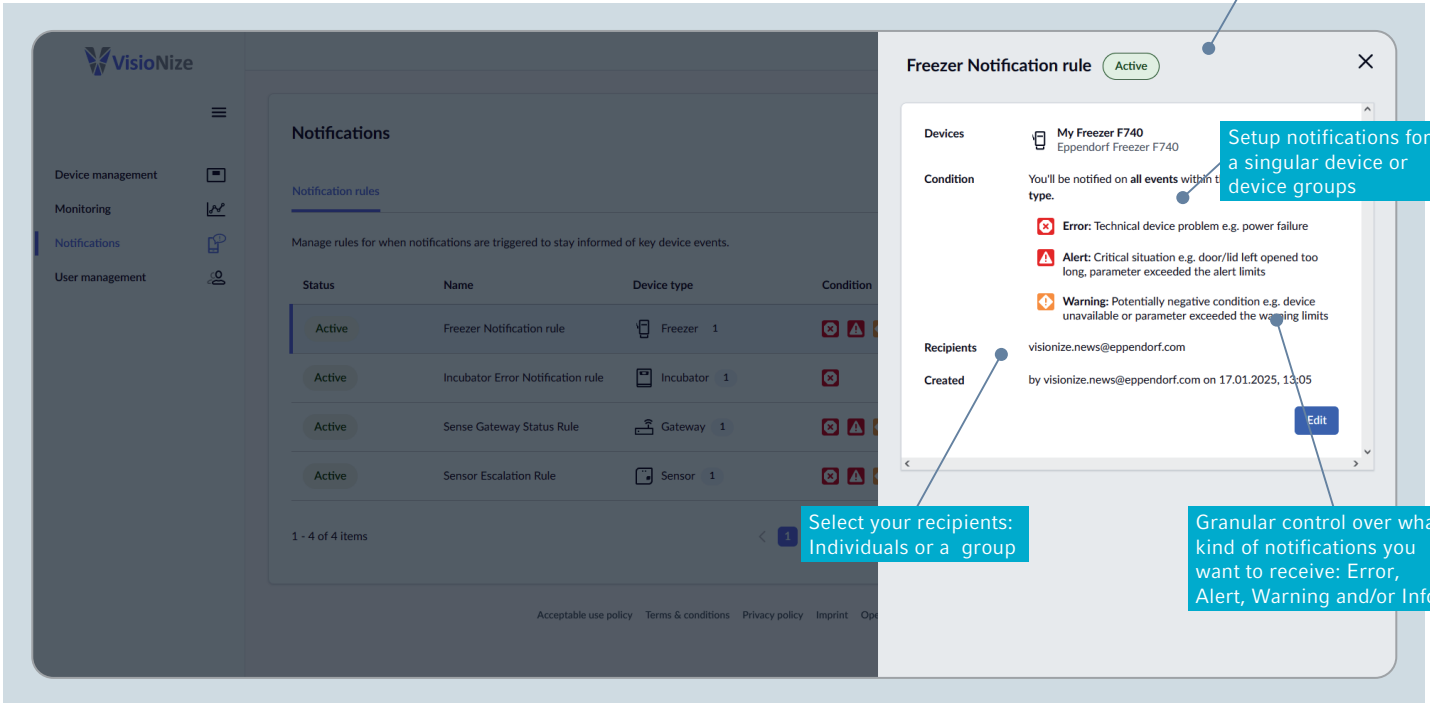


Your Enhanced Safety Net with Incidents & Alerts



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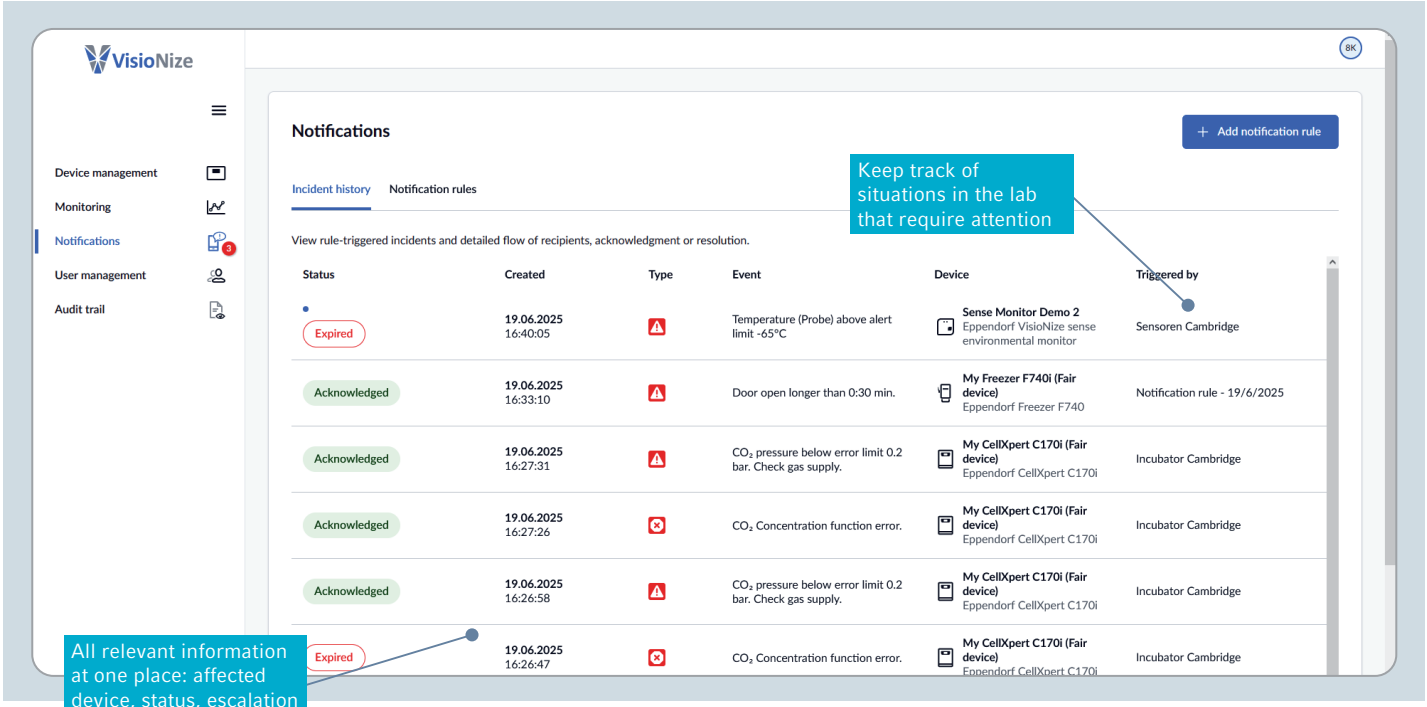


Benefits of Connecting Your Freezers to VisioNize Lab Suite

> **Monitor your entire freezer fleet** and **document** all related **device parameters** like temperature and ambient temperature as well as all device interactions, e.g., set-point changes
> Export parameter and event data

> Receive **real-time notifications** via email and SMS:
"Temperature above alert limit -60 °C"
"Door open longer than 2:00 min."
"Main power failure. Check power supply to the device."

Benefits of Connecting Your Incubators to VisioNize Lab Suite

> **Monitor your incubators** and **track all related device parameters** such as **temperature, O_2 and CO_2** as well as all device interactions, e.g., set-point changes
> Export parameter and event data

> Receive **real-time notifications** via email and SMS:
"Temperature below alert limit 30 °C"
"CO_2 pressure below warning level 0.4 bar. Check gas supply."
"Long door opening: Close the door."

Benefits of Connecting Your Shakers to VisioNize Lab Suite

> **Monitor your shaker runs** and **track all related device parameters** such as temperature, **agitation,** and **remaining runtime** as well as all device interactions like set-point changes

> Export parameter and event data

> Receive **real-time notifications** via email and SMS:
"Program 'pre-culture' has finished."
"Temperature below alarm limit 30 °C"
"Door open longer than 5:00 min."

Benefits of Connecting Your Cyclers, Mixers and Centrifuges to VisioNize Lab Suite

> **Monitor** all **device-related parameters** like temperature and agitation as well as all device interactions like set-point changes
> Check the current status of your experiment
> Export parameter and event data

> Receive **real-time notifications** via email and SMS:
"Execution of program ended"
"Imbalance: imbalance during run"

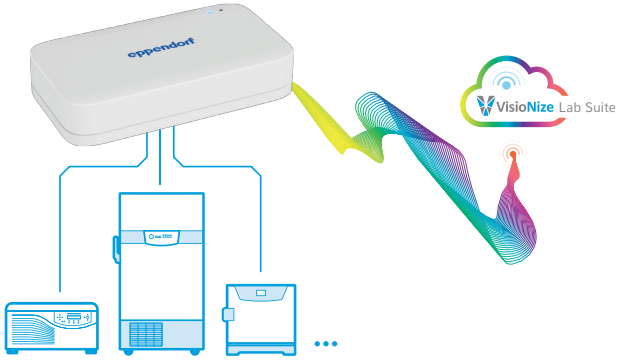
Enabling Connectivity with VisioNize box 2

The easy-to-install hardware hub connects your VisioNize box enabled devices to the VisioNize Lab Suite.

The hub works as a translation system, **enabling data collection** of the device data in the platform. The box offers connections for **up to four devices** depending on the lab infrastructure/device location.

> Connect **VisioNize box enabled (Eppendorf) devices** like freezers, incubators, shakers, centrifuges and thermomixers
> **Monitor** all device-related parameters and run statuses
> Have all parameter **data ready for export**

> **Receive notifications** for connected devices covering:
  > Significant parameter changes
  > Errors
  > Device status changes



Order VisioNize box 2 or VisioNize box 2 cable via the Eppendorf e-shop or contact your local Eppendorf sales representative.

Enabling Connectivity with VisioNize sense equipment

VisioNize sense equipment can capture, record and transfer even the smallest changes in your environmental conditions to VisioNize Lab Suite. Use VisioNize sense to monitor your lab rooms, CO_2 incubators, fridges or freezers from any supplier.

> Sensors can be used for any kind of **temperature-controlled device monitoring** (from -90°C to +60°C)
> Configure **temperature limits** in VisioNize Lab Suite and receive notifications via SMS or email.
> All temperature data will be documented for audits
> Use VisioNize sense as an independent (redundant) temperature probe for a fridge or freezer
> The environmental sensor tracks additional parameters, e.g., **ambient temperature** (-10°C to +59°C), **humidity** (0 % to 95 %, non-condensing), pressure (700 mbar to 1.200 mbar) and **brightness** (0 % to 100 %).

Order VisioNize sense equipment and VisioNize box 2 as connectivity hub via the Eppendorf e-shop or contact your local Eppendorf sales representative.

VisioNize Lab Suite Setup Guide

Getting You and Your Lab Connected

Make the **right preparations** for your digital lab. We recommend **checking** the following **before subscribing** to the VisioNize Lab Suite and its services:

1. Check the **IT prerequisites** for VisioNize Lab Suite with the VisioNize Lab Suite Setup Guide*
2. Check the **compatibility of your device** by having a look in the VisioNize Lab Suite Device Overview*
3. Check **what else is required** for connecting your lab devices, e.g., VisioNize box 2, VisioNize box 2 cable or VisioNize sense equipment

For more guidance and precise planning, contact your local Eppendorf sales representative.

Find helpful tips and tricks to help you navigate your lab through digital transformation

*A list of helpful documents can be found in the back including the links to the documents online.

Choose the Plan That Meets Your and Your Labs Needs

VisioNize Lab Suite

Sign up for free!

You can easily subscribe online with your myEppendorf-Account to receive access to the VisioNize Lab Suite: www.eppendorf.com/visionize-subscription

For starters:

VisioNize Lab Suite Essential
FREE (for first 3 devices)

Gain free, hands-on experience with VisioNize Lab Suite and enjoy a glimpse into the digital, connected lab. The Essentials plan covers all necessary aspects to get started to digitally manage the lab for increased sample safety.

> Real-Time Monitoring
> Email Notification
> Data Access for 7 days
> Device Data Export

Please note:
This plan already includes 3 licenses for connected devices right from the start. Each additional device requires an additional license.

Hardware and software upgrades are not included and may require an additional fee.

For more peace of mind:

VisioNize Lab Suite Sample Safety+
Price / device / year

Be confident about your sample safety and guarantee smooth operation around the clock with the Sample Safety+ plan.

Enjoy the enriched feature set in VisioNize Lab Suite for more convenience!

> All features of Essentials plan
> SMS Notifications
> Data Access for 90 days
> Response-Based Alarm Escalation
> Audit Trail

Please note:
The price per device license depends on total number of connected devices.

Connect Your Laboratory Devices

Connecting VisioNize touch enabled devices

1. Connect your device:

Connect the Ethernet interface at the rear side of the device to a patched wall port with a standard Ethernet cable.

2. Add the device to your device list:

Navigate to the “Device management” in the VisioNize Lab Suite, click “+ Add device”, and enter the serial number.

3. Check the device status:

Please ensure that your device changes from the “Pending” status to “Connected” in the device overview. This may take a while.

VisioNize Lab Suite Setup Guide

Connecting VisioNize box enabled devices

1. Connect the Eppendorf devices to the VisioNize box 2 or VisioNize box 2 cable:
Use an appropriate adapter cable. One VisioNize box 2 or VisioNize box 2 cable can manage up to 4 devices.

2. Update the VisioNize box 2:
Download the latest software version here, unpack the ZIP file on an empty USB stick and connect it to the VisioNize box 2 or VisioNize box 2.

3. Add your VisioNize box 2 to the network:
Connect the Ethernet interface at the rear side of the device to a patched wall port with a standard Ethernet cable. The VisioNize box 2 also offers WLAN configuration - for details refer to the Operating Manual.

4. Add the device to your device list:
Navigate to the “Device management” in VisioNize Lab Suite, click “+Add device”, and enter the serial number.

5. Check the device status:
Please ensure that your device changes from the “Pending” status to “Connected” in the device overview. This may take a while.

Connecting VisioNize sense equipment

VisioNize sense equipment, like the VisioNize sense environmental monitor and attached VisioNize sense temperature sensors, can also be connected by using the VisioNize box 2*. Please follow the same setup steps as on the left side (starting with step 2) to connect the VisioNize box 2 as a hub.

Repeat step 4 for each VisioNize sense environmental monitor. VisioNize sense temperature sensors will be added automatically.

*Please note: The VisioNize box 2 cable is not able to connect VisioNize sense equipment.

Lab Innovation Drivers & Proud VisioNize Lab Suite Users

eppendorf

Enhanced Efficiency & Sample Safety with VisioNize®

How a Molecular Testing Lab Boosts Sample Safety & Efficiency with VisioNize

An Eppendorf Customer Story

VisioNize Lab Suite is a cloud-based platform offering real-time device monitoring in the lab. From freezers, incubators, shakers, centrifuges, PCR cyclers and mixers, a whole range of devices can be connected – even fridges and freezers that are from third-party suppliers. Several environmental conditions can be tracked, including ambient temperature, pressure, humidity, and light. Lab users are instantly notified if device parameters drift outside their specified range, meaning samples and reagents can be kept safe at all times.

Dr. Kevin Roth

The VisioNize Lab Suite is transforming sample monitoring in labs around the globe, across a broad range of applications. To delve further into the real-world benefits of the system, we spoke with Kevin Roth, PhD, Head innovation and personalized therapy monitoring at a diagnostics lab in Heppenheim, Germany. Learn how VisioNize from Eppendorf has improved sample monitoring for Dr. Roth and his team, and the far-reaching impacts this has had on their lab.

Storing Precious Samples and Reagents in a Diagnostics Testing Lab

The diagnostic lab is based at the MVZ Centre for Laboratory Medicine in Heppenheim and specializes on hematological malignancies. Dr. Roth leads the department of innovation and personalized therapy monitoring. The MVZ team handles a variety of critical samples, including blood, bone marrow, and other tissues collected from biopsies. These samples are used for a wide range of diagnostic techniques, such as classical morphology, flow cytometry molecular biology, and next-generation sequencing (NGS).

The labs' samples and reagents are stored across a large number of fridges and freezers. These must be kept at consistent temperatures, as explained by Dr. Roth:

"Our fridges and freezers contain lots of highly valuable and irreplaceable cell and nucleic acid samples. To ensure integrity, we need to be sure they are stored properly at all times. Additionally, reagents for routine testing, such as antibodies, enzymes, primers, dPCR Assays, kits, and NGS reagents, have to be maintained at specific temperatures, to ensure our assays remain as accurate and reliable as possible. Monitoring our fridge and freezers not only mitigates financial risk, but also is a requirement for accredited laboratories."

The molecular test lab alone processes around 5,000–6,000 samples annually, and this is predicted to increase year-by-year. As workflows continue to expand, the lab increasingly needs a reliable and efficient digital solution to monitor the temperature of its fridges and freezers.

The Search for an Effective Sample Monitoring System

Before adopting VisioNize Lab Suite from Eppendorf, the testing lab evaluated different monitoring systems. Other systems were not able to record real-time temperature data or were incompatible with the lab's ultra-low temperature (ULT) freezers, meaning separate systems would have to be used for these units complicating monitoring. Furthermore, customer support was not accessible during off-peak times, as Dr. Roth says:

"During testing of another system, one of the routers failed on a Friday afternoon and we couldn't get support from the software provider. This meant we were completely blind for the weekend, not knowing if our samples and reagents were safe. Lack of system alerts following sensor failure can lead to significant consequences, as seen at the Karolinska Institute in Stockholm in December 2023, when decades of research were destroyed when a freezer malfunctioned."

"The fast and effective alert system is a huge benefit of VisioNize. We are glad we have a system that we trust will warn us if anything happens, so we can be sure that our samples are kept safe."

Kevin Roth, PhD, Head innovation at MVZ Centre for Laboratory Medicine in Heppenheim

Discover how the VisioNize Lab Suite from Eppendorf has improved efficiency and sample safety in a high-demand molecular testing lab.

Customer Sucess Story: Enhanced Efficiency & Sample Safety with Eppendorf VisioNize Lab Suite

'VisioNize Lab Suite adds value to the lab. We have a lot of sensitive samples and it is really important to not waste time on things that should not be problems. VisioNize has been great in monitoring our devices enabling users to regulate things from afar.'

Ashmita Jha, Research Assistant, MIT,
Boston, United States

'VisioNize Lab Suite helps us automatically log device data and use it for further purposes. This makes our evaluations extremely robust and our protocolling complete.'

Process Development Drug Substance,
CureVac AG, Tübingen, Germany

'An unreliable freezer that I could not monitor from outside has been one of my negative experiences in the past. Thanks VisioNize® Lab Suite, I am confident that our samples are safe as it allows monitoring from anywhere and warns irregulatories immediately.'

Prof. Dr. Sabine Ellinger,
Institute of Nutrition and Food Sciences,
Human Nutrition, Uni Bonn

'We expect lab instruments to be connectable which is why we chose Eppendorf for our -80°C freezers and cell culture incubators.'

Kilian Guse, PhD, CEO an Co-Founder,
GeneQuine Biotherapeutics,

Everything at a Glance

Get ready to setup the VisioNize Lab Suite:
www.eppendorf.com/visionize-setup-guide

Learn what is required to connect your device:
www.eppendorf.com/visionize-device-overview

Request your personal demo here:
www.eppendorf.link/visionize-demo

Register and manage your subscription online:
www.eppendorf.com/visionize-subscription

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