



**N** Snappy

BY NOKEVAL

**Digital integration platform  
for various IoT measuring devices  
and third-party services**

processparameters

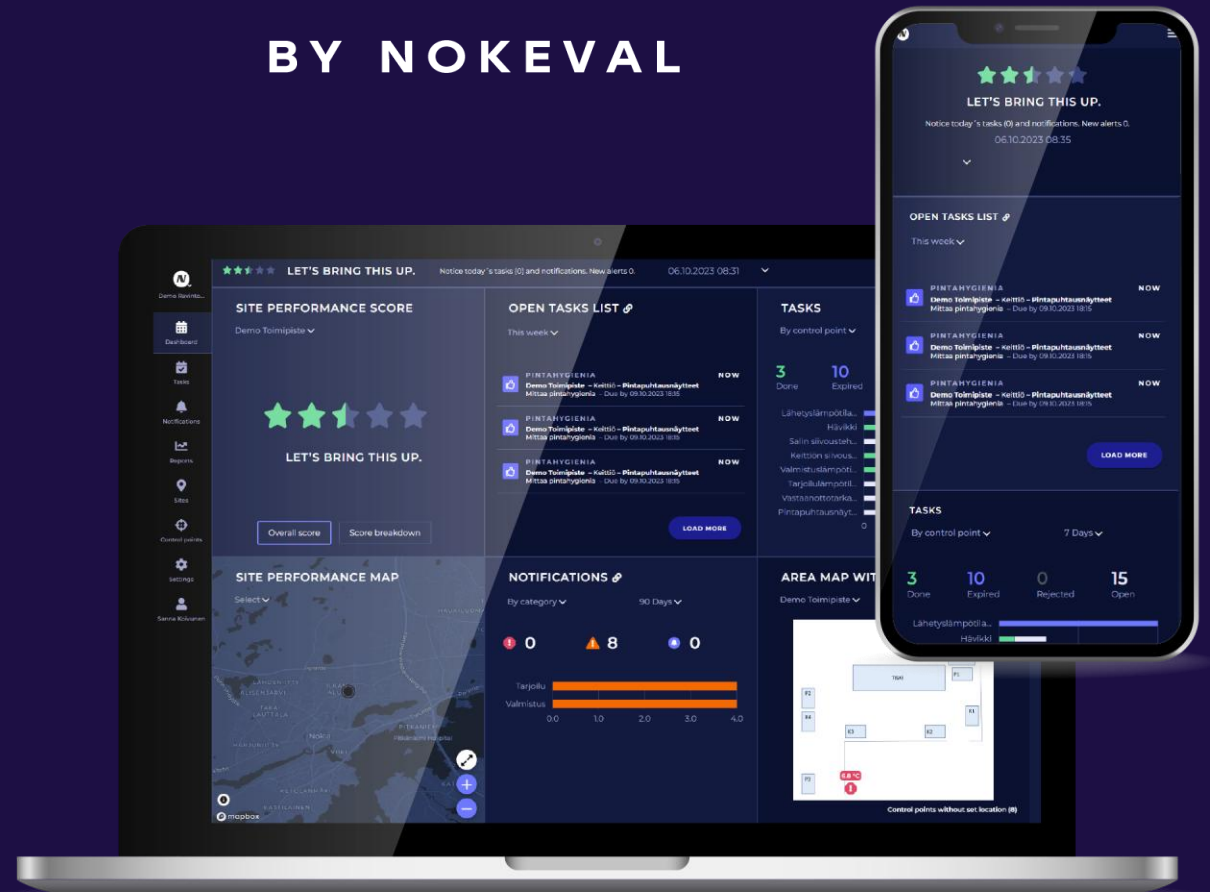
**Nokeval**

# N Snappy

BY NOKEVAL

## Platform service for critical condition monitoring

Flexible, customizable, and technology-independent cloud service platform for IoT solutions in any operating environment.



**” We specifically developed NSnappy® as a generic cloud service platform that can be easily customized for various operational environments and customer-specific needs. NSnappy® is an excellent solution, for instance, in situations where you want to proceed quickly and cost-effectively.”**

**Lari Maasalo  
Chief Technology Officer, Nokeval**

# An easy, fast, and cost-effective way to implement a cloud service solution

## SAVE TIME

Thanks to a ready-made cloud service platform, you don't need to build your own platform. This allows you to bring your IoT solution to market faster.

## COMPETITIVE ADVANTAGE

Utilize our expertise in wireless IoT measurement devices and related cloud service platforms.

## SAVE COSTS

Achieve results quickly and avoid high development costs by utilizing a ready-made integration platform for IoT devices and systems.

## MANAGED DEVELOPMENT PROCESS AND SMOOTH DEPLOYMENT

Device development, software development, testing, and production under one roof ensure an agile and controlled development process and a smooth deployment.

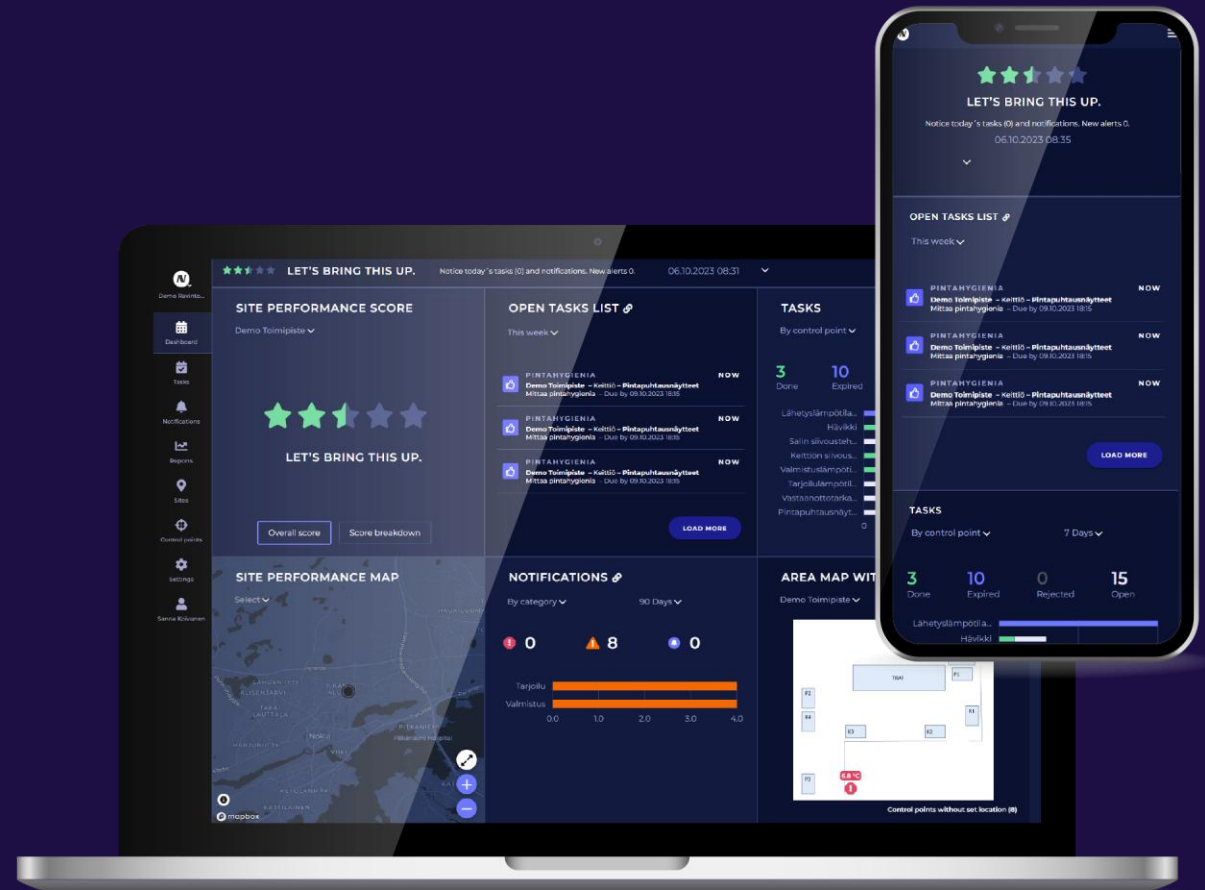
NSnappy® integration platform

# What does NSnappy® do?

NSnappy® enables data-driven management.

The service automates and enhances process monitoring.

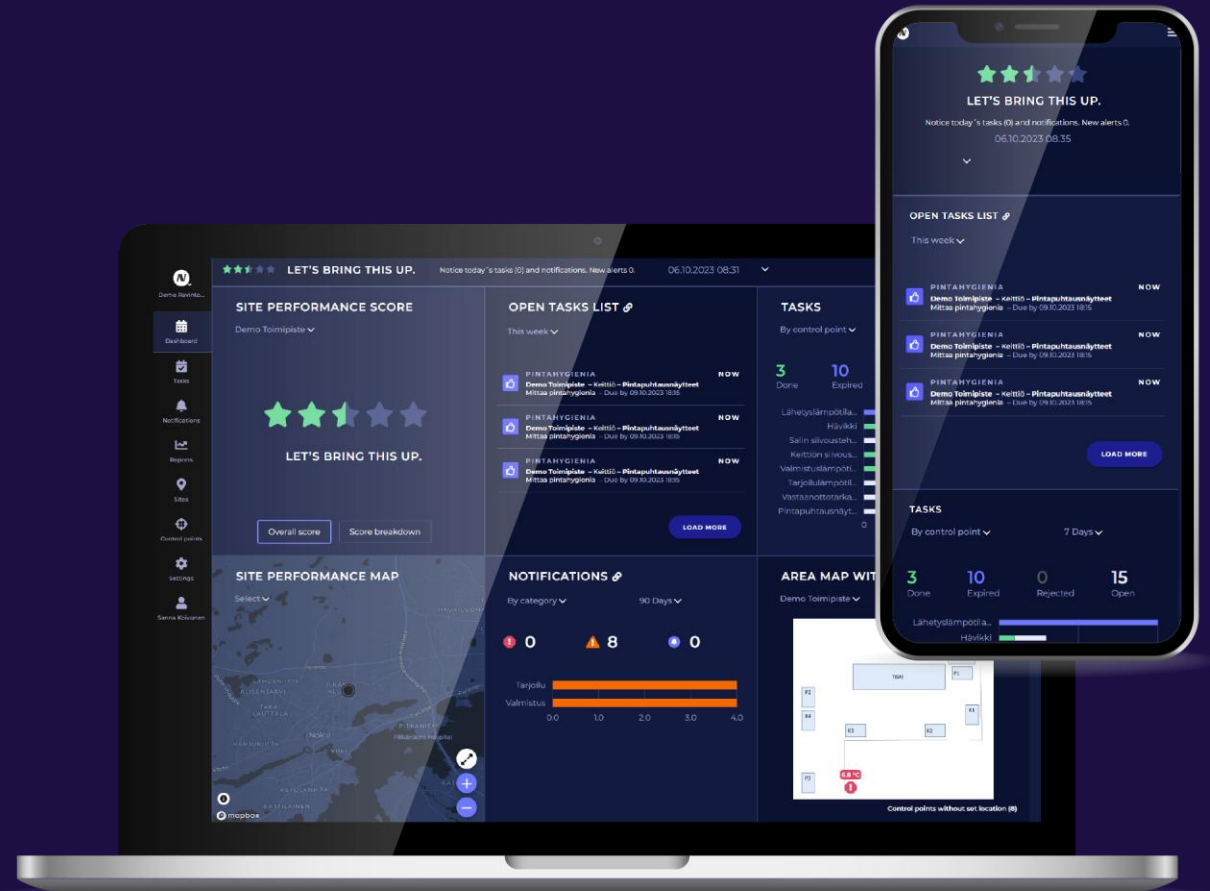
Additionally, it ensures the high quality and safety of operations and products – one measurement at a time.



NSnappy® integration platform

# What is NSnappy® used for?

- ✓ Monitoring and managing conditions and processes
- ✓ Condition monitoring
- ✓ Self-monitoring
- ✓ Process monitoring
- ✓ Quality management platform
- ✓ Recording, logging, reporting, and analyzing measurement data
- ✓ Document management / information management

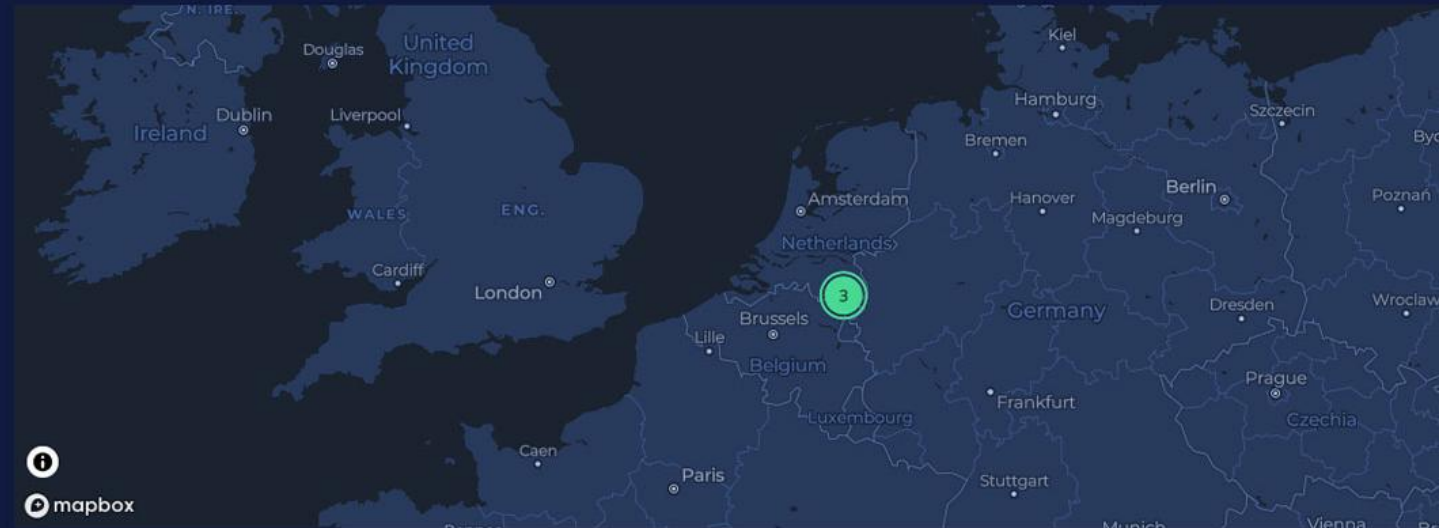


# Benefits of Service

- ✓ A flexibly customizable ready-made cloud service and integration platform
- ✓ A quick and easy way to implement cloud service solutions
- ✓ Centralized task control and management
- ✓ Automatic monitoring data collection and storage
- ✓ Continuous and real-time monitoring helps optimize processes and enables rapid response to deviations
- ✓ Efficient handling and documentation of deviations ensure quality and improve safety
- ✓ Availability and discoverability of information in one system improve information flow
- ✓ Location and status of branch offices on a world map
- ✓ Location and status of monitoring points on floor plans
- ✓ The scalable service package is easy to customize and expand according to your needs

## Sites

<b>SITE NAME</b>	<b>REGION</b>	<b>SITE ADDRESS</b>	<b>TOWN</b>
<input type="text" value="Site name"/>	<input type="text" value="Region"/> 	<input type="text" value="Site address"/> 	<input type="text" value="Town"/>
<b>PHASE</b>			
<input type="text" value="Phase"/> 	<b>SEARCH</b>		



ALL (3) ACTIVE ALERTS (1)

Site name ↓	Region	Notifications	Alerts	Task descriptions	Overall score
Headquarters	Southeast division	75	54	0	★★★★☆
Main depot	Southwest division	19	0	0	★★★★★
New site	—	0	0	0	★★★★★

# Service Content

- ✓ Collection of measurement data
- ✓ Notifications
- ✓ Alerts, warnings, deviations
- ✓ Tasks
- ✓ Raports
- ✓ Partner services (integrated services and interfaces)
- ✓ Data visualization (events and trend curves)
- ✓ Device management
- ✓ Management of sites (lifecycle, maps, locations)
- ✓ Communication functions

★ ★ ★ ★ ★ LET'S RAISE THIS GRADE! Notice today's tasks (0) and notifications. New alerts 0.

### ATTENTION LIST

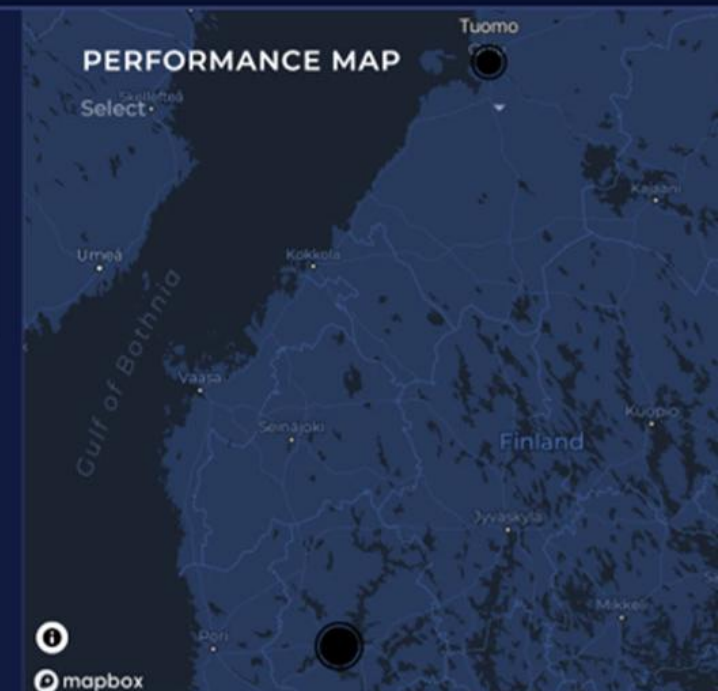
All 7 Days

Antti / Keittiö	Jääkaappi	2	3
Vesa / Keittiö	Jääkaappi	2	3
Tuomo / Keittiö	Jääkaappi	2	1
Antti / Keittiö	Pakastin	1	4
Hannu / Keittiö			

### PERFORMANCE MAP

Tuomo

Select

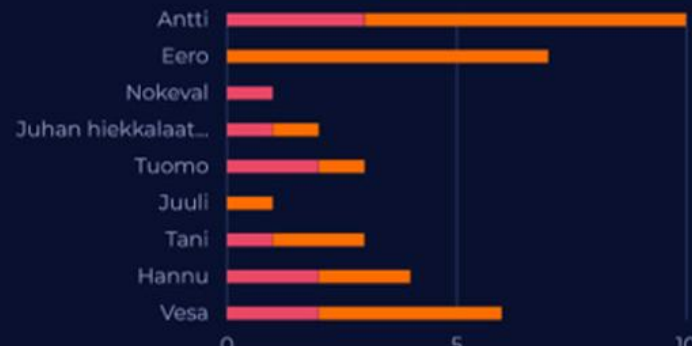


mapbox

### NOTIFICATIONS

By sites 7 Days

12 25 0



Antti	12
Eero	8
Nokeval	2
Juhan hiekkalaat...	3
Tuomo	4
Juuli	1
Tani	4
Hannu	4
Vesa	6

### SITE RANKING

Sanna

★ ★ ★ ★ ★

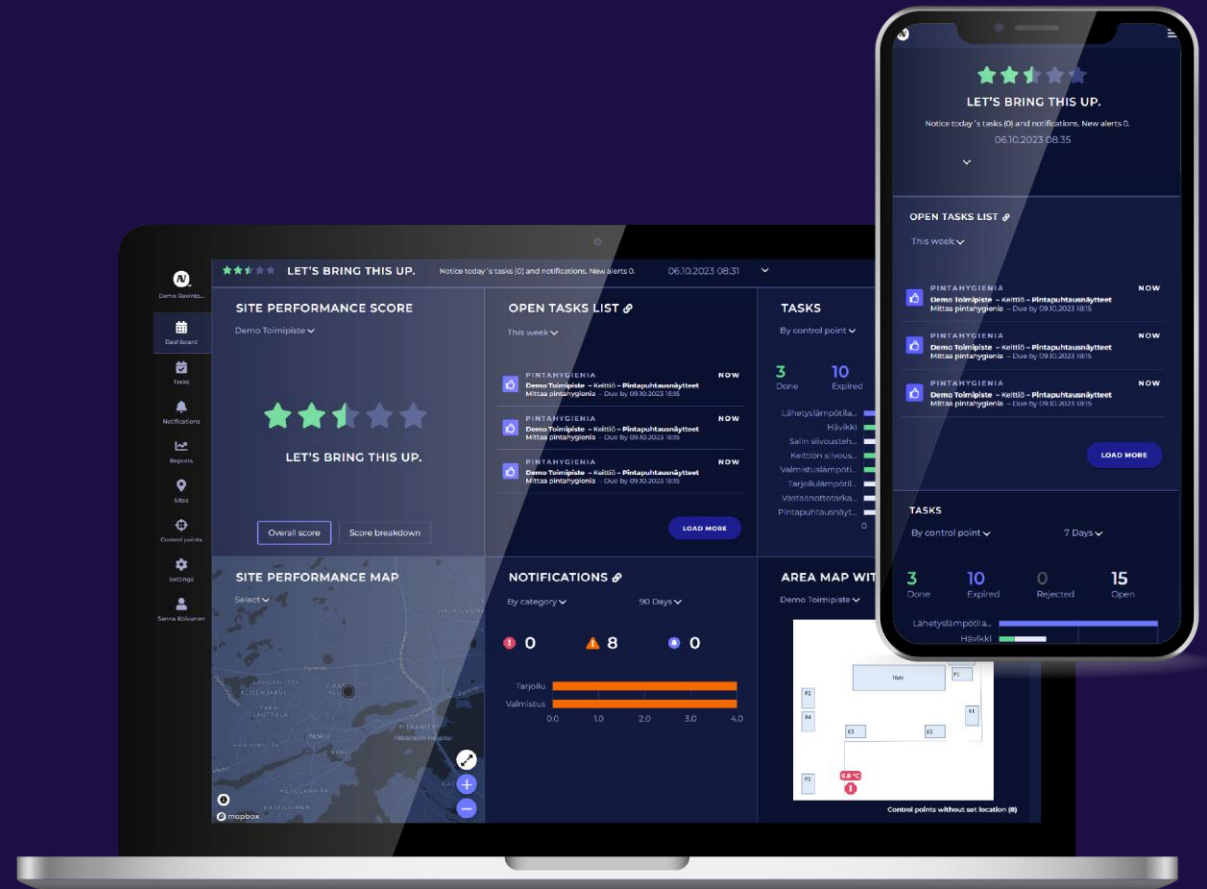
LET'S BRING THIS UP.

Overall score Score breakdown

## NSnappy® integration platform

# Technical Basics of Service

- ✓ Browser-based NSnappy® works on tablets, computers, and smartphones
- ✓ Data is stored in the cloud, allowing for scalability and ensuring strong data protection
- ✓ Five levels of data hierarchy: Customer, Branch, Area, Monitoring Point, Location
- ✓ Branch office management (lifecycle, floor plans, location on maps)
- ✓ Functions (categories): e.g., reception inspection, inventory, food preparation, waste management, etc.
- ✓ User rights can be flexibly defined for teams/roles
- ✓ Interfaces: REST API (Application Programming Interface), Nokeval device registry, Single Sign-On (SSO)
- ✓ Supports IoT devices compliant with various standards, such as LoRaWAN, including earlier Nokeval devices
- ✓ Can be integrated with other systems, such as e-commerce, order processing, delivery, and billing systems
- ✓ Device management. Device registry integrated with device manufacturing and deliveries
- ✓ Available in 7 languages (EN, D, FI, FR, SE, ES, NL)



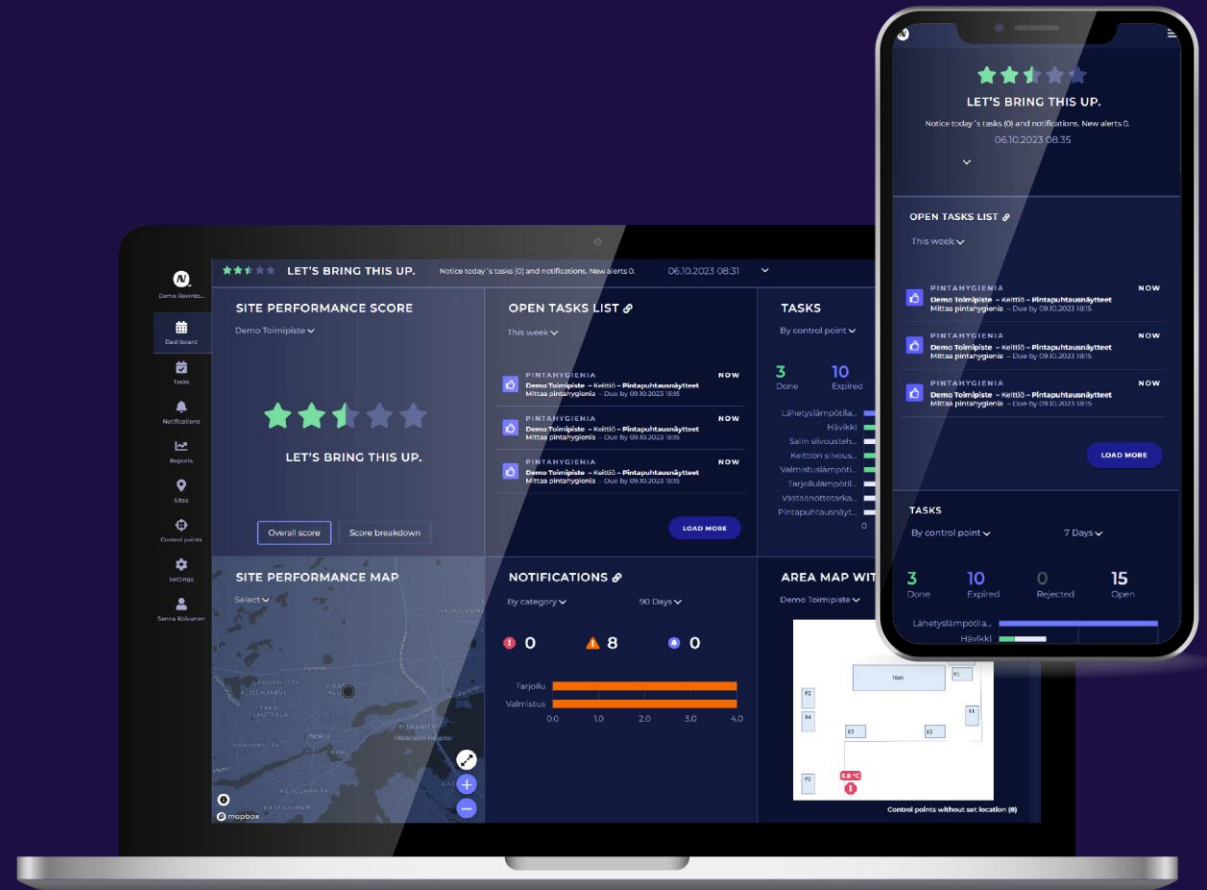
## Customizable Features of Service

- ✓ Customizable homepage and 15 widgets
- ✓ Flexibly customizable five levels of data hierarchy
- ✓ Logical categories can be freely defined
- ✓ Tasks
- ✓ Schedule management
- ✓ Notifications (alerts, warnings, deviations)
- ✓ Information functions
- ✓ Information display
- ✓ Customizable report templates and scheduled report ordering
- ✓ Ready-made HACCP reporting template
- ✓ Automatic data collection from measurement devices or manual input
- ✓ Data visualization (events and trend curves)
- ✓ Device management (lifecycle, maps, locations)
- ✓ Branch office management (lifecycle, maps, locations)
- ✓ Site management system
- ✓ Integration interfaces

## NSnappy® integration platform

# Key Points of the Service

- ✓ Suitable for all operating environments
- ✓ Device registry integrated with device production and deliveries
- ✓ Lifecycle management of customers and usage sites
- ✓ Supports IoT devices according to various standards, such as LoRaWAN, including earlier Nokeval devices
- ✓ Can also be integrated with other systems, such as e-commerce, order, delivery, and billing systems
- ✓ Responsive web browser interface – works on both mobile and PC.



**“In NSnappy<sup>®</sup>, we have condensed the knowledge and expertise we have accumulated over two decades in wireless IoT devices and cloud-based data collection platforms.”**

**Lari Maasalo  
Chief Technology Officer, Nokeval**

# NSnappy® Selection Criteria

Customer Criterion (Need / Requirement / Risk)	NSnappy® Solution
Multiple locations / areas	NSnappy® platform service hierarchy <ul style="list-style-type: none"> <li>• Location (can be placed on a map)</li> <li>• Area = building, kitchen, etc. at the location; building floor plan can also be uploaded to NSnappy</li> </ul>
Several measurement points in the location	NSnappy® measurement points can be viewed on the floor plan
Wireless measuring devices are needed – pulling cables is difficult and expensive	Installation of NSnappy® measuring devices is easy and affordable
Continuous measurement is necessary	Measurement results are automatically saved to the NSnappy® service
Customization of self-monitoring plan is needed	For example, an intelligent HACCP reporting model is already available
Management of operational tasks is required (descriptions, instructions, scheduling, reporting, monitoring, etc.)	NSnappy® platform service, including intelligent document templates and document management system
The condition, function, or device being measured is critical in the customer’s process	NSnappy® platform service + Intelligent wireless NSnappy® measuring devices
Malfunction or condition causes serious financial or reputational harm to the customer	NSnappy® platform service + Intelligent wireless NSnappy® measuring devices

The more customer criteria are met, the more necessary NSnappy® technology becomes

# As a result, an intelligent and responsible solution that genuinely enhances business operations



## Enhanced time management

Automated data collection saves time from routine tasks for other tasks significant to business operations.



## Smoother daily life

Measurement results are readable in real time anywhere.



## Better communication

Information is easily accessible in one place for everyone who needs it.



BY NOKEVAL

**NSnappy<sup>®</sup> platform service applications in different  
operating environments**

# Professional kitchens and restaurants

 **Snappy**

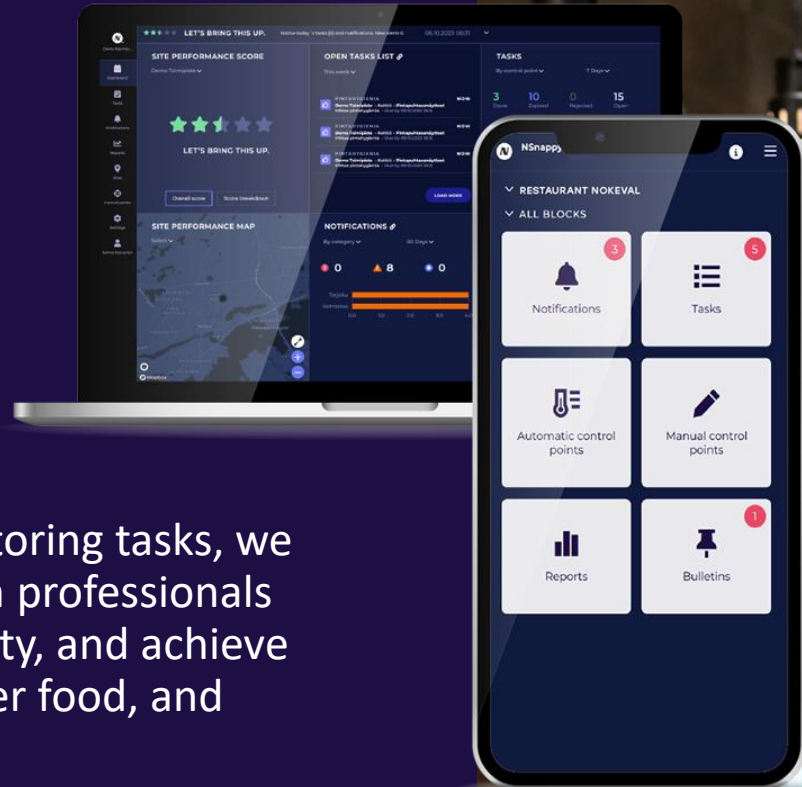
BY NOKEVAL

# Snappy

BY NOKEVAL

## Digital self-monitoring service

By automating self-monitoring tasks, we make the work of kitchen professionals easier, increase food safety, and achieve happier employees, better food, and customer service.





# Self-monitoring of professional kitchens



CCP = Critical Control Point

processparameters

Nokeval

# Self-monitoring of professional kitchens



CCP = Critical Control Point

NSnappy® = Platform service: Tasks/Functions

Kide, Wash, Sense, Sense IR, Cool, Hygi = NSnappy® devices

processparameters

Nokeval

## Measuring Devices

- NSnappy® Kide – Continuous temperature monitoring of freezers, cold rooms, and storage
- NSnappy® Cool – Automatic measurement of rapid cooling of products
- NSnappy® Wash - Measurement of dishwasher temperature profiles
- NSnappy® Sense and NSnappy® Sense IR  
Sample measurements of the internal and surface temperatures of products
- NSnappy® Hygi – Rapid sample measurement of surface hygiene levels
- NSnappy® Hub – Base station

## Services

- NSnappy® digital self-monitoring service
  - NSnappy® Kitchen
  - NSnappy® Kitchen Plus
- Device installation and deployment services
- NSure – Lifecycle services for IoT measuring devices
- Training services
  - Group training as remote training
  - Customized training as remote or on-site training
- NSnappy® Help Center 24/7
- NSnappy® customer support on weekdays from 8 am to 4 pm

# Benefits of NSnappy®



## TIME SAVING

- ✓ Automation of routine tasks:  
no more scattered entries on paper and in binders
- ✓ All entries in a uniform format
- ✓ Saving time from routine for the most important things: serving customers and preparing food



## COST SAVINGS

- ✓ Using data to reduce energy and maintenance costs of equipment
- ✓ Minimizing waste by monitoring waste costs
- ✓ Reducing control fees through tailor-made reports to authorities



## FOOD SAFETY QUALITY MANAGEMENT

- ✓ Uniform and up-to-date instructions ensure a high and consistent quality of self-monitoring
- ✓ Identifying critically important tasks, so that working time is optimally spent on different tasks according to their criticality
- ✓ Real-time reports help monitor the progress and quality of operations  
→ Limit value alerts help react quickly to deviations



## SMOOTH AND MANAGED EVERYDAY ACTIVITIES

- ✓ **For the manager:**  
No more disorganized practices creating unnecessary pressure for those responsible for ensuring compliance with regulations
- ✓ **For the employee:**  
Up-to-date task lists and instructions make it easy to carry out the tasks in the self-monitoring plan



## IMPROVED EMPLOYEE EXPERIENCE AND MORE SKILLED PROFESSIONALS


- ✓ Modern tools, time freed from routine and clear management make work more meaningful
- ✓ More time to be a better boss
- ✓ Better data to improve operations and achieve strategic goals



# NSnappy® provides the tools for everyday sustainability actions

- ✓ Food safety
- ✓ Energy efficiency
- ✓ Reduce food waste
- ✓ More efficient use of ingredients and materials
- ✓ Transparency and traceability
- ✓ Better employee experience
- ✓ Support domestic design and manufacturing
- ✓ The NSure service for devices minimizes the amount of electronic waste.





Together with our customers, we  
create better and safer food and  
restaurant experiences.

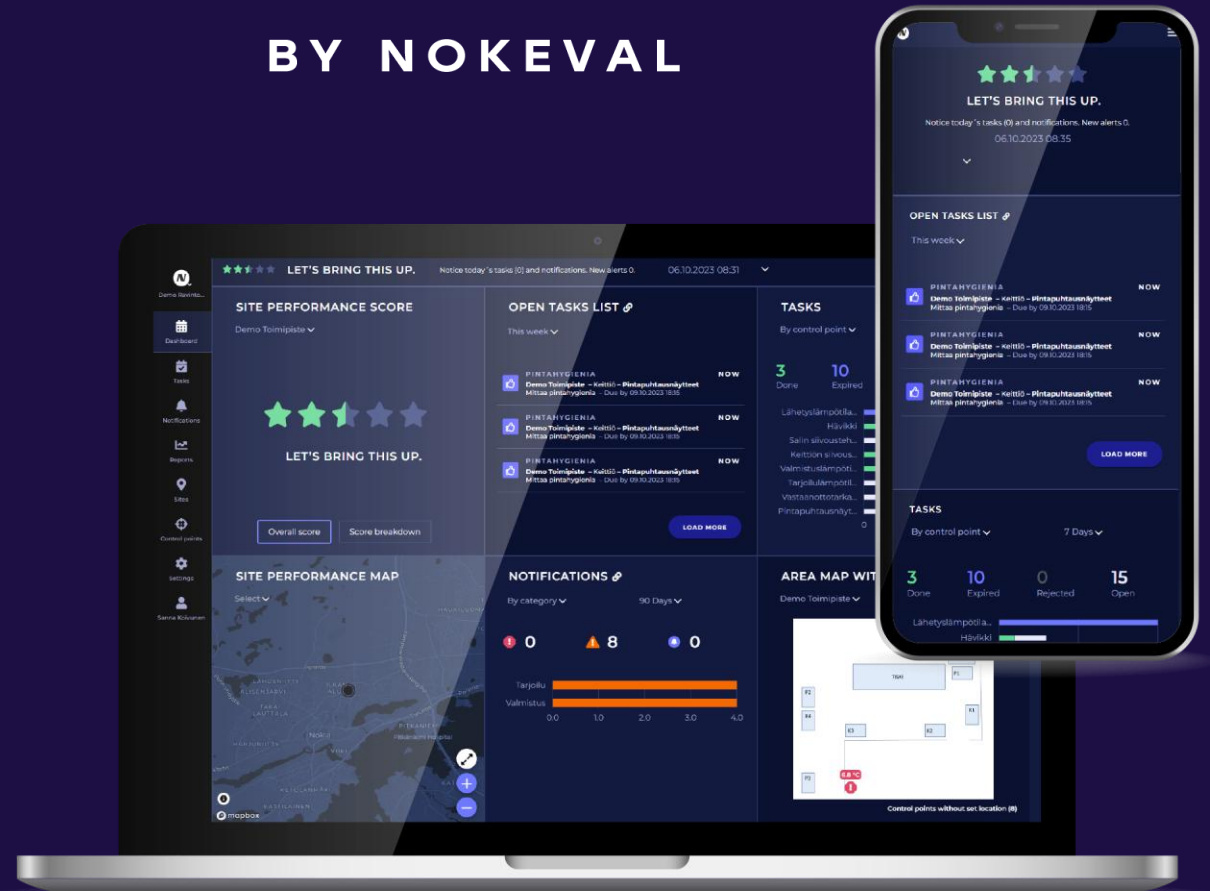
# Construction and buildings

# N Snappy

BY NOKEVAL

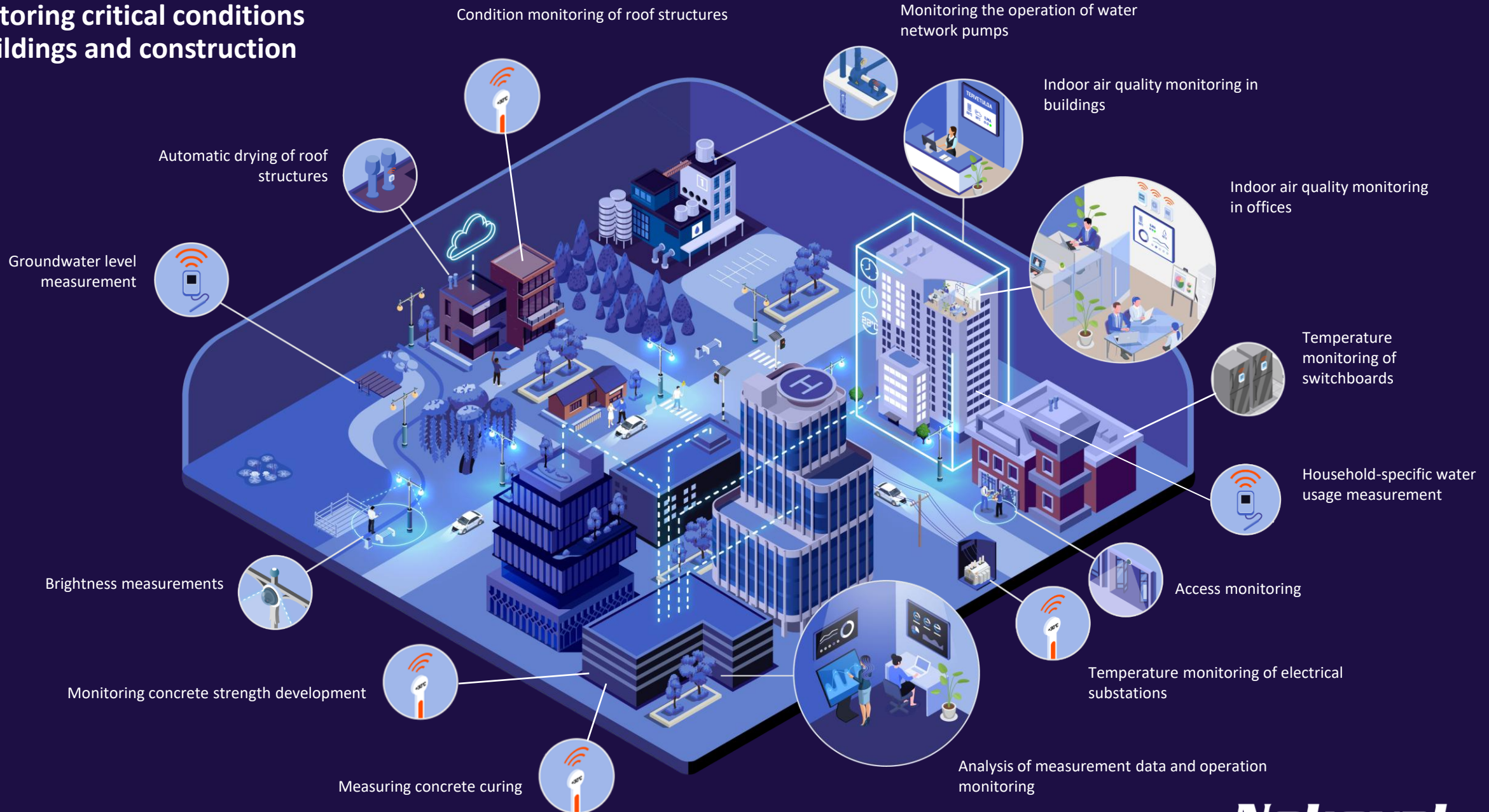
## A construction sector lifecycle solution platform for IoT measuring devices

By automating condition monitoring, we reduce manual measurement and increase the safety of construction, housing and the environment one measurement at a time.

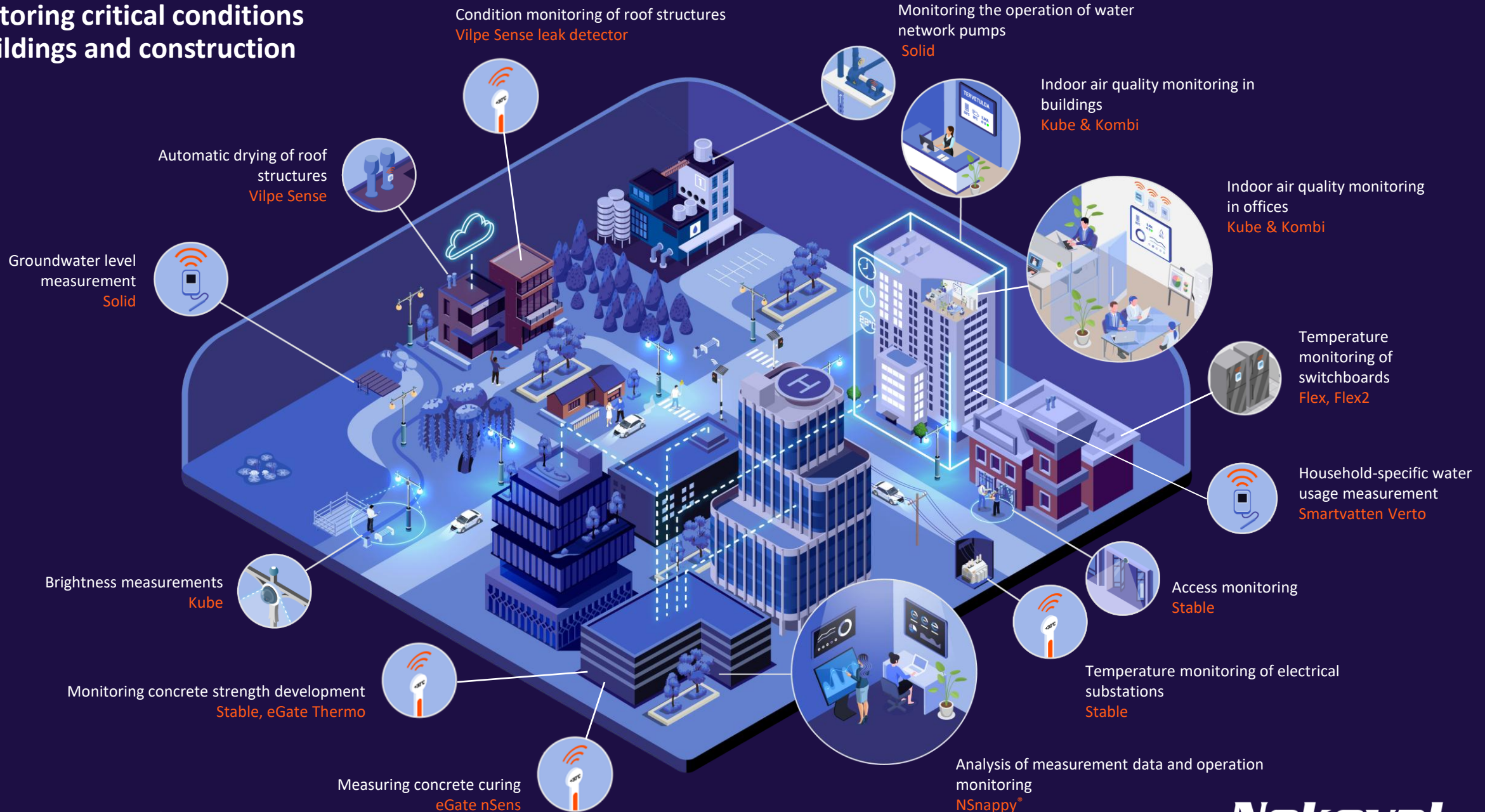




# Monitoring critical conditions in buildings and construction



# Monitoring critical conditions in buildings and construction



# Smart IoT measuring devices and additional services

## Watertight modular measuring devices for general use

- **Flex** – watertight, modular IoT measuring devices
- **Solid** – an IoT device for measuring the surface level of groundwater
- **Cell** – a base station

## Equipment for measuring cast concrete

- **Stable** – an IoT device for measuring the hardening of concrete
- **Flex-nSens** – an IoT device for measuring the suitability of concrete to be coated

## A device for measuring the surface temperature of pole-mounted transformers and transformer substations

- **Stable** – an IoT measuring device for monitoring transformers

## Measuring equipment for indoor air

- **Kide** – an IoT temperature measuring device
- **Kube** – a modular IoT measuring device for temperature, humidity, carbon dioxide, particles and VOCs
- **Kombi** – an IoT measuring device for temperature, humidity, carbon dioxide, differential pressure and VOCs

## Additional services

- **NSure** – lifecycle services of IoT measuring devices and base stations



We are involved in building healthy and sustainable housing and environments.

processparameters

# Smart Industry and logistics

 **Snappy**

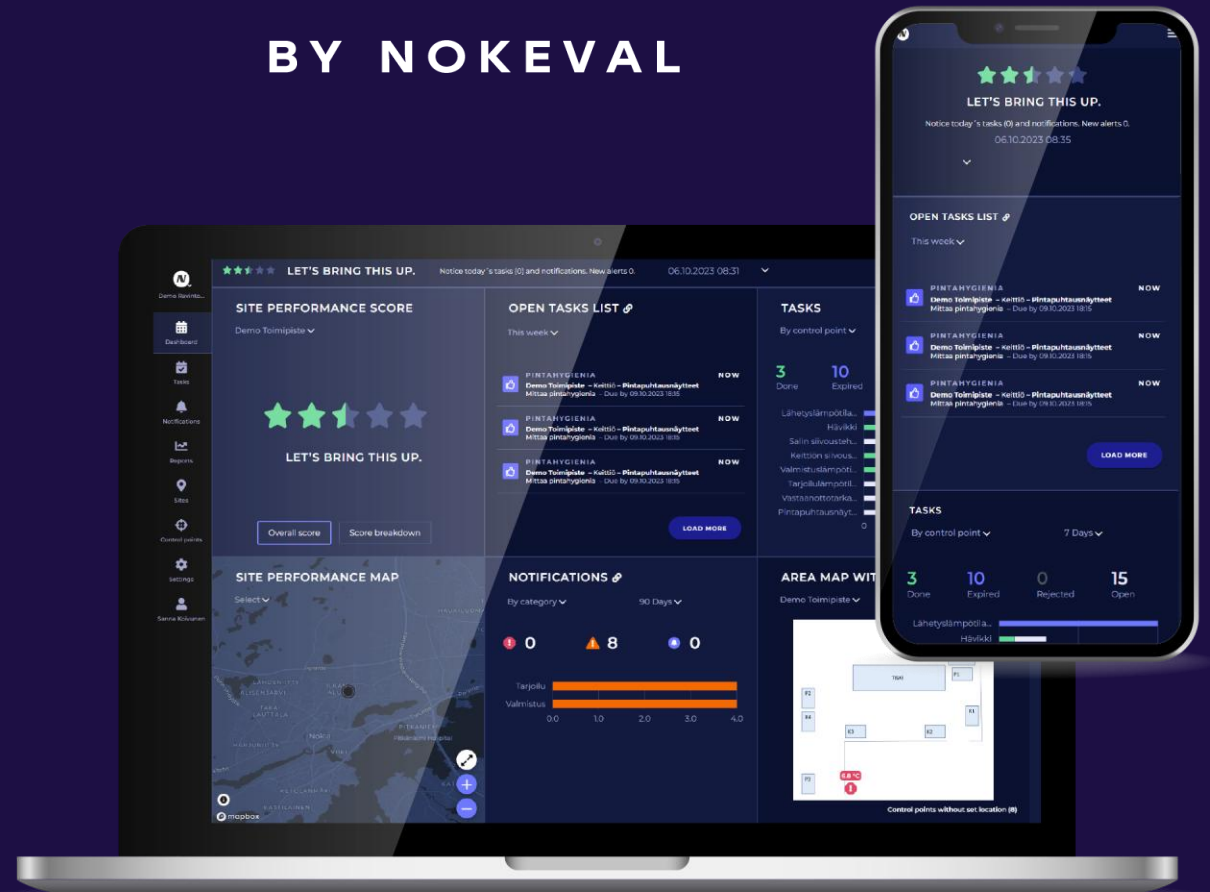
BY NOKEVAL

# N Snappy

BY NOKEVAL

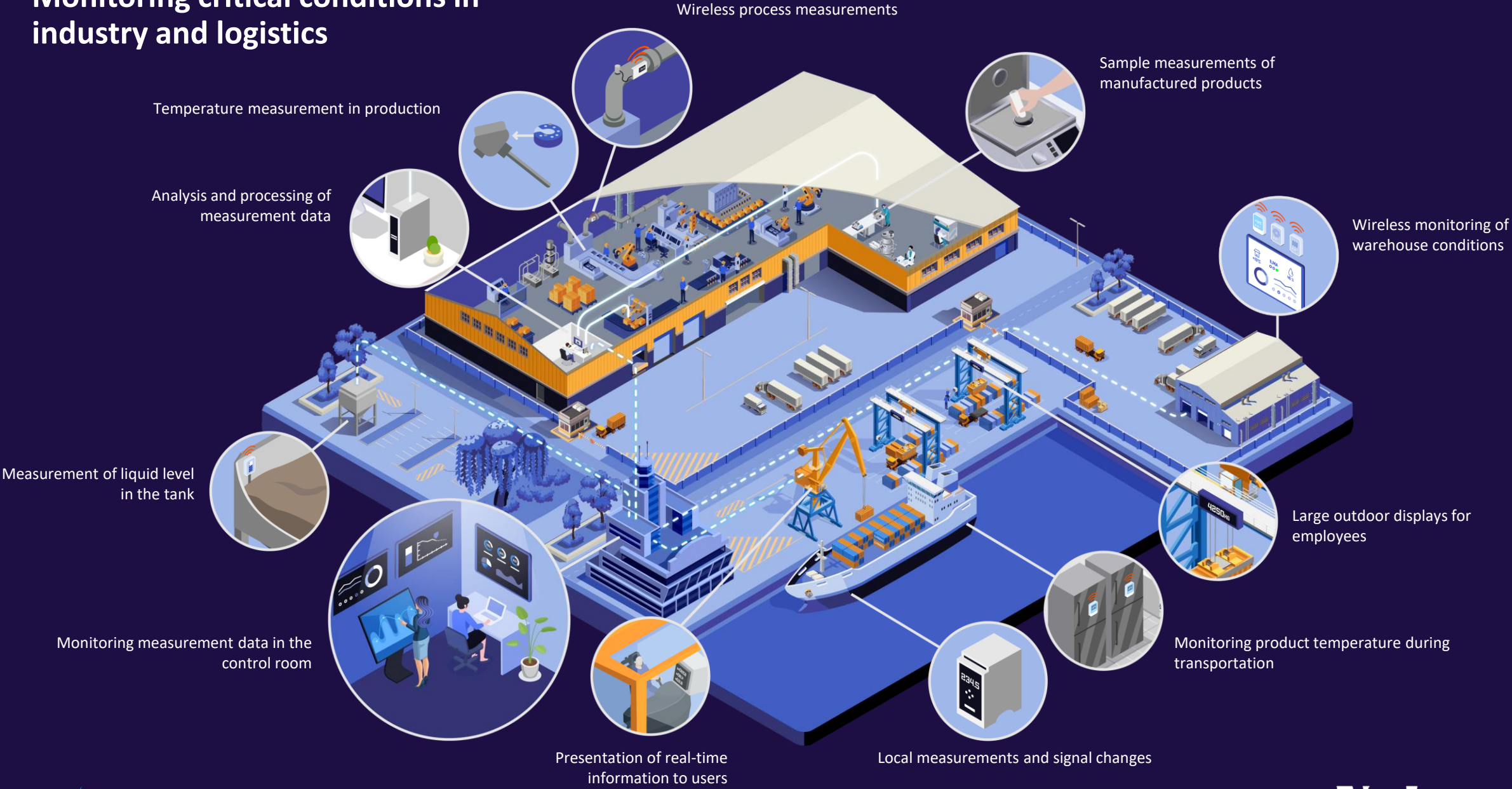
Platform service for IoT measuring devices for industrial needs and other demanding conditions

By automating condition monitoring, we reduce manual measurements, improve the monitoring of industrial processes, and ensure the high quality of operations and products.

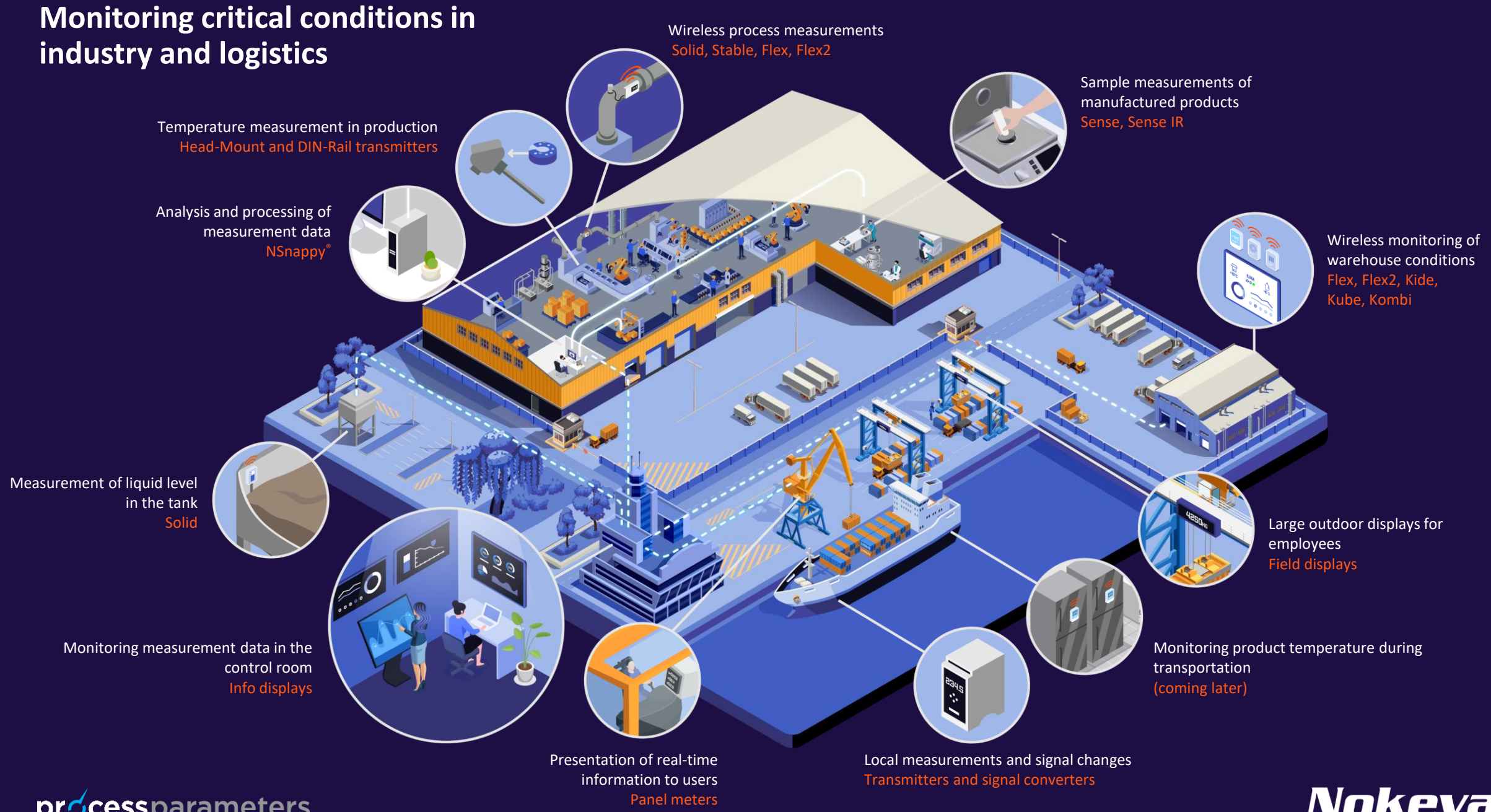




# Monitoring critical conditions in industry and logistics



# Monitoring critical conditions in industry and logistics



Wireless process measurements  
Solid, Stable, Flex, Flex2

Sample measurements of manufactured products  
Sense, Sense IR

Temperature measurement in production  
Head-Mount and DIN-Rail transmitters

Analysis and processing of measurement data  
NSnappy®

Wireless monitoring of warehouse conditions  
Flex, Flex2, Kide, Kube, Kombi

Measurement of liquid level in the tank  
Solid

Large outdoor displays for employees  
Field displays

Monitoring measurement data in the control room  
Info displays

Monitoring product temperature during transportation  
(coming later)

Presentation of real-time information to users  
Panel meters

Local measurements and signal changes  
Transmitters and signal converters

# Off-the-shelf equipment solutions and additional services for industry

## Field displays

- **FD Series** – large field displays
- **300 Series** – small self-powered field displays

## Panel meters

- **200 Series** – self-powered panel meters
- **2000, PM and PME Series'** panel meters

## Wireless measuring equipment

- **Flex** – watertight, modular IoT measuring devices

## Transmitters and signal converters

- **641** – a galvanic isolator
- **HTB230** – a **PT100** transmitter
- **7470** – a serial to analogue converter

## Temperature sensors

- **PT100**, thermocouple and IR sensors

## Additional services

- **NSure** – lifecycle services of IoT measuring devices and base stations

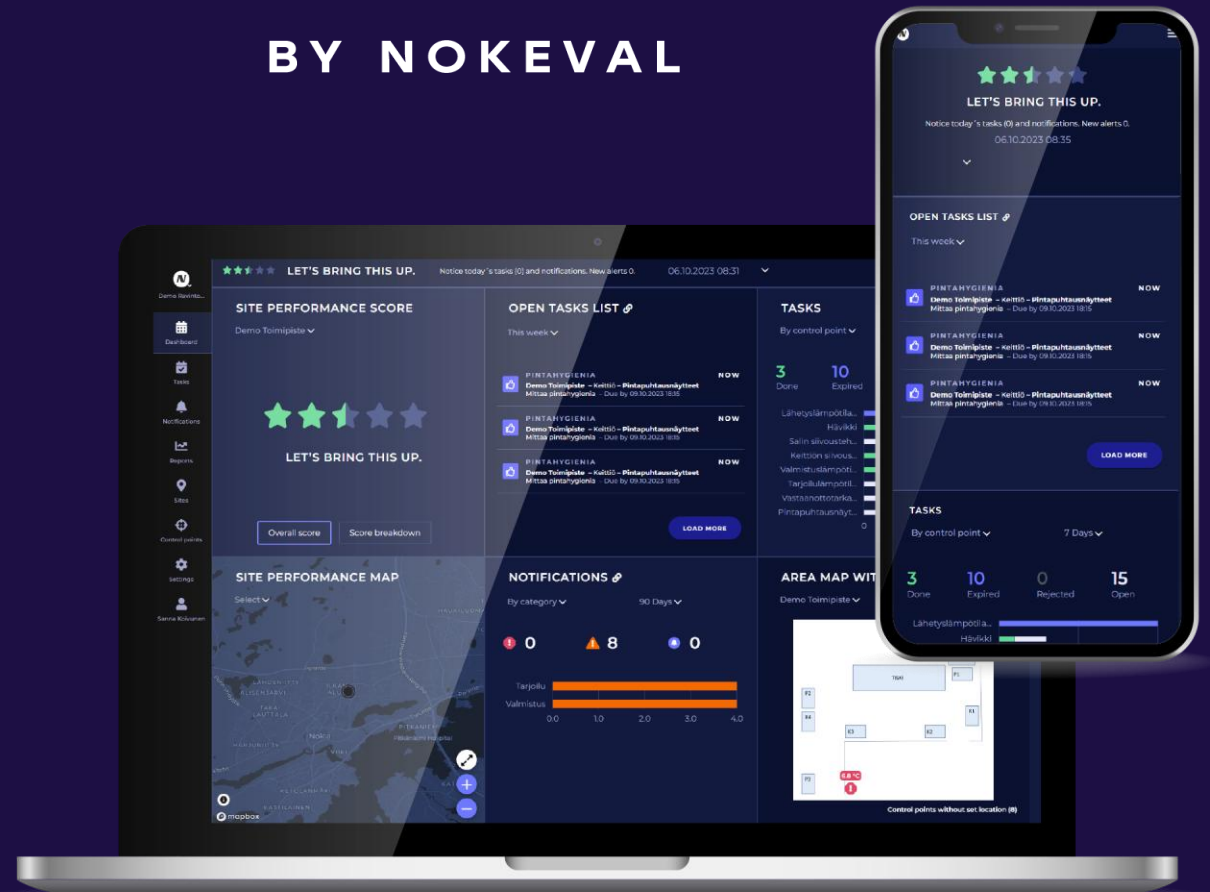
# Food industry

# N Snappy

BY NOKEVAL

## Digital self-monitoring and condition monitoring service for the needs of the food industry

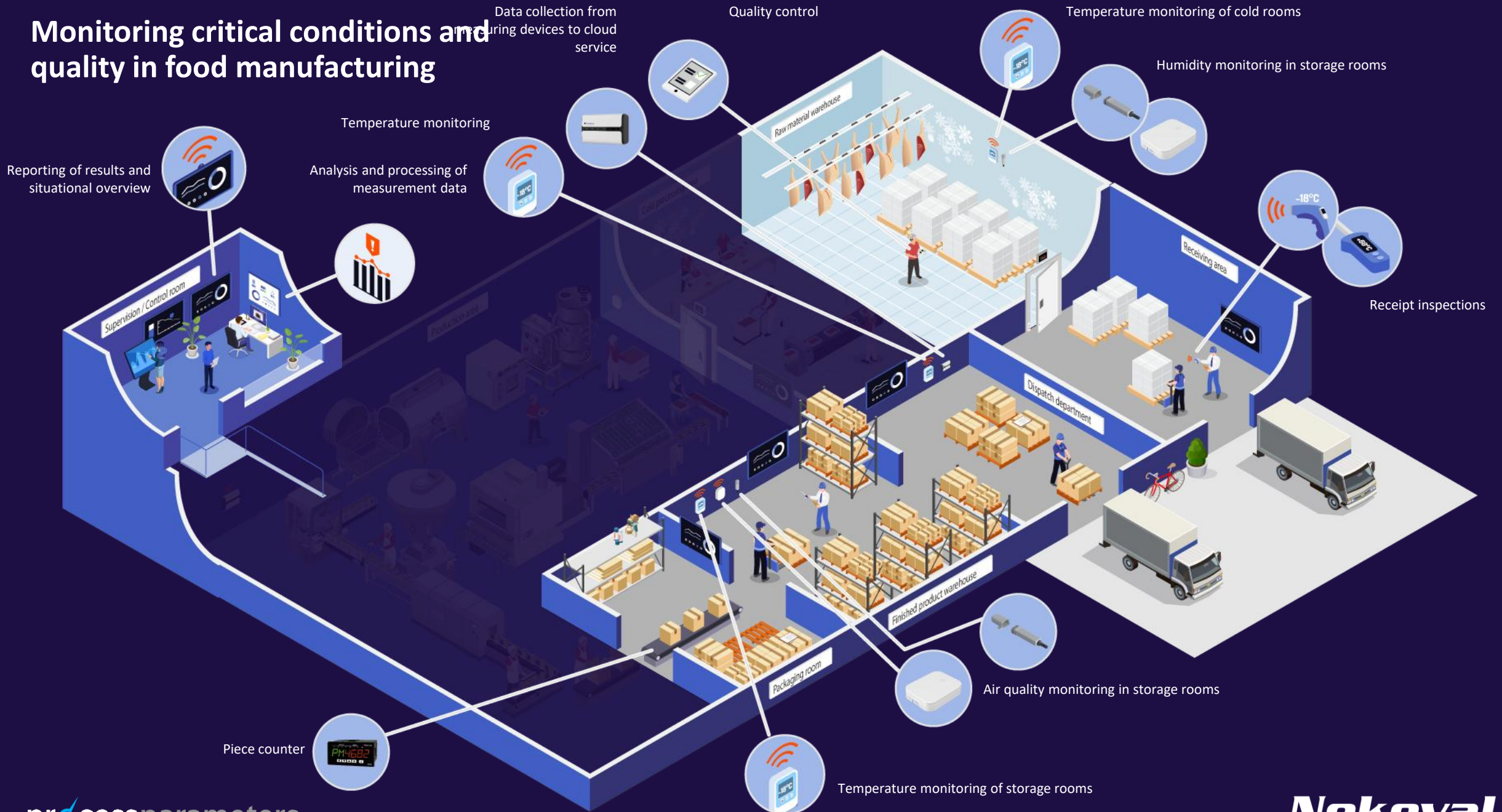
Our self-monitoring and condition monitoring solutions enhance food production processes and facilitate daily work routines. Our solutions ensure the high quality and food safety of end products in demanding conditions.



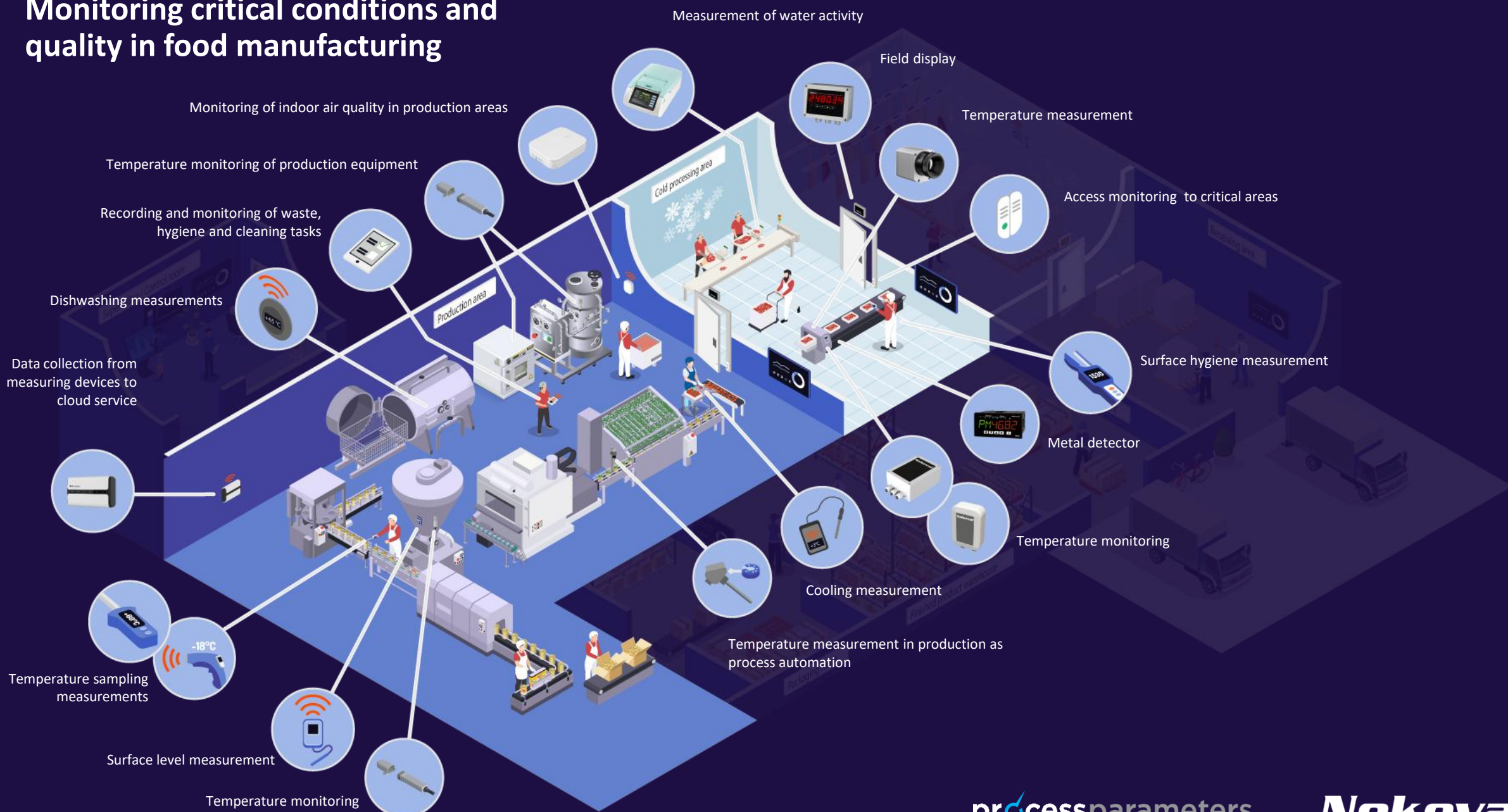
# Monitoring critical conditions and quality in food manufacturing



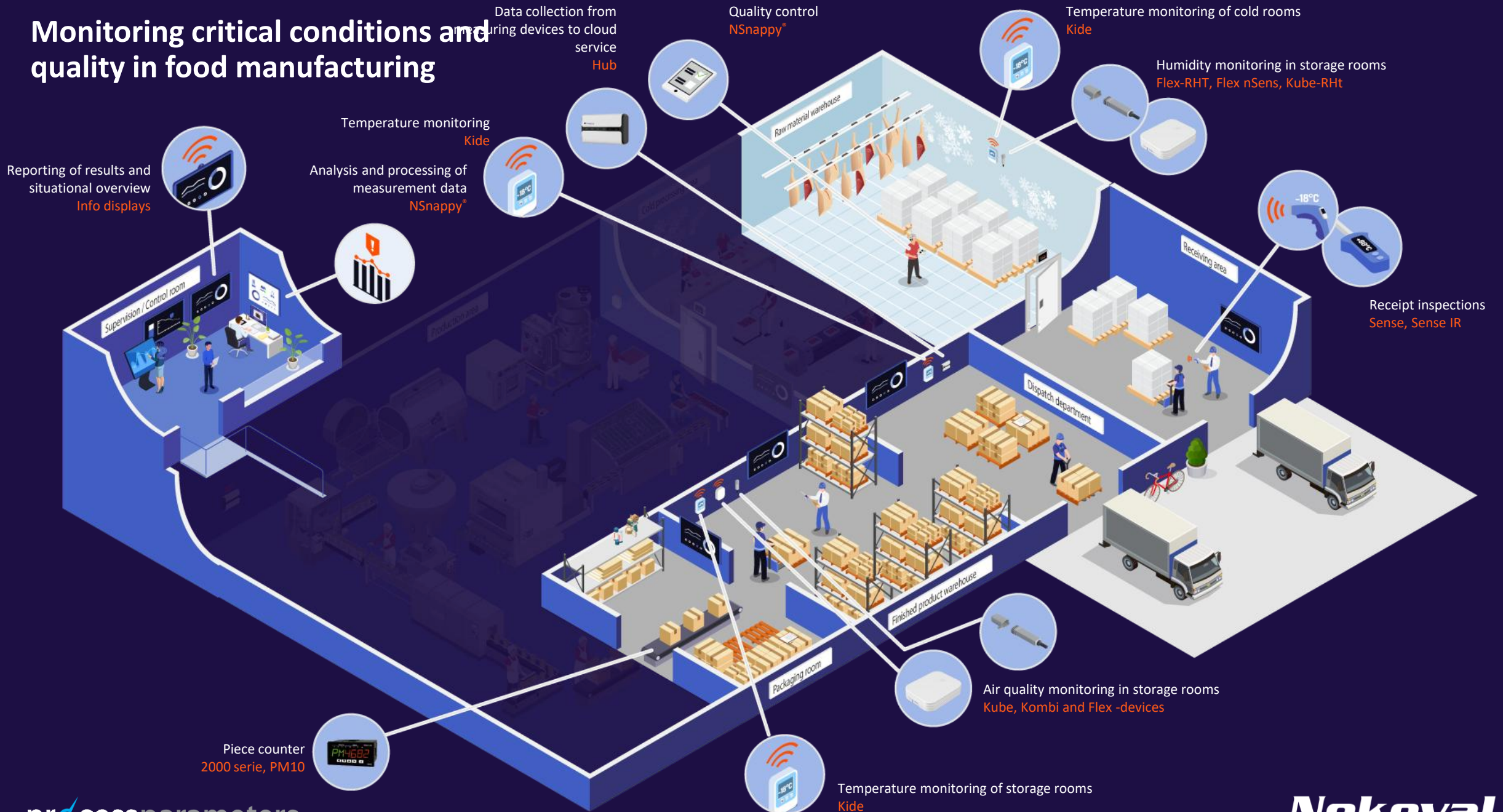
# Monitoring critical conditions and quality in food manufacturing



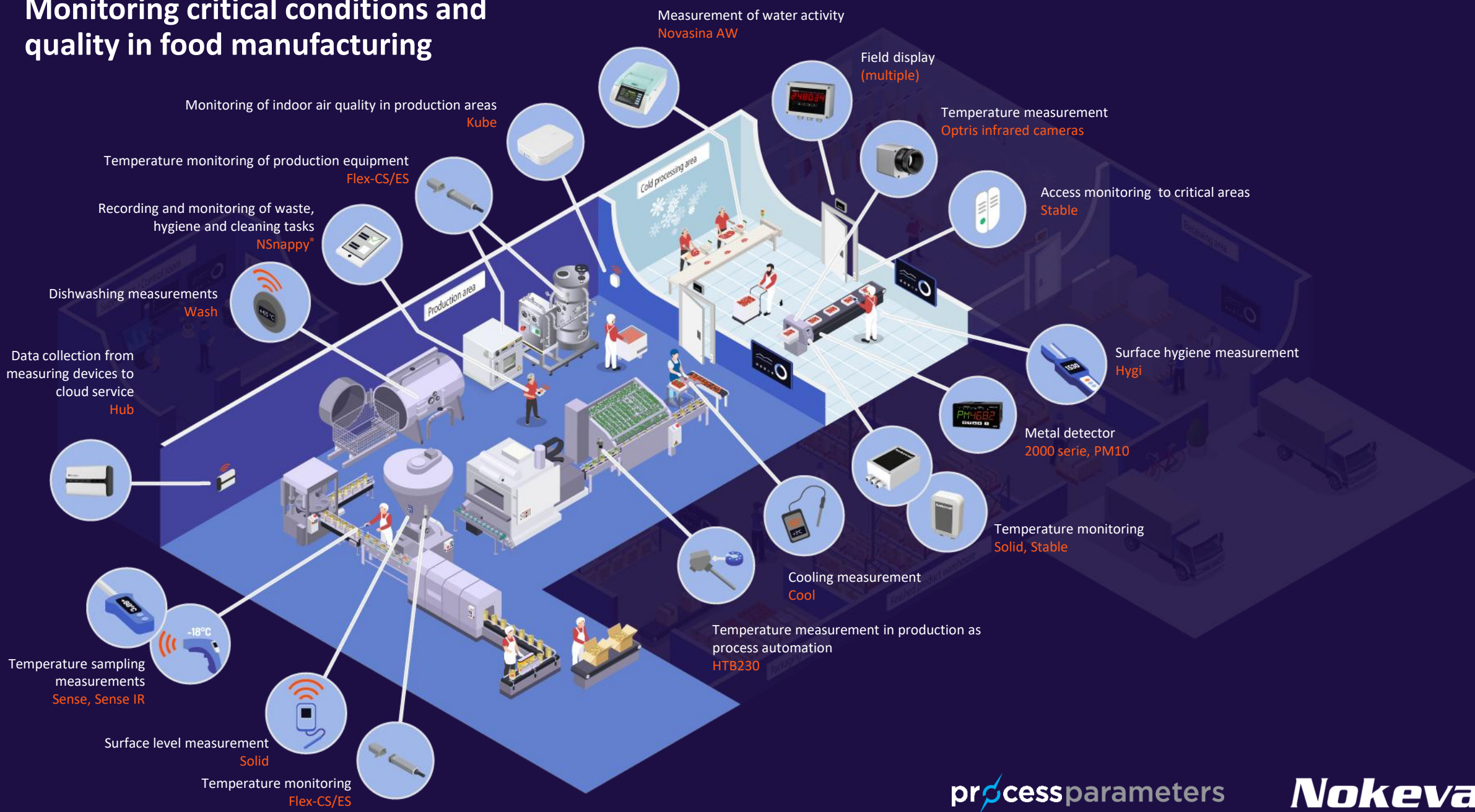
# Monitoring critical conditions and quality in food manufacturing



# Monitoring critical conditions and quality in food manufacturing



# Monitoring critical conditions and quality in food manufacturing



# Ready-made device solutions and additional Services for the food industry

## Temperature Measurement

- **NSnappy® Sense** and **NSnappy® Sense IR**  
Sample measurements of internal and surface temperatures of products
- **NSnappy® Kide** – Temperature transmitter
- **Kide Sky** – Temperature transmitter
- **Flex** and **Flex2** – Temperature measurement
- **Stable** – LoRaWAN transmitter for temperature sensor and digital inputs
- **Kube** (various models)
- **Kombi** – Multifunction transmitter
- **Optris** infrared cameras

## Surface Hygiene

- **NSnappy® Hygi** – Rapid sample measurement of surface hygiene levels

## Relative Humidity

- **Flex** and **Flex2 series** – Humidity measurement
- **Kube** (various models)
- **Kombi** – Multifunction transmitter

## Water Activity Measurement

- **Novasina AW**

## Door Monitoring

- **Stable**

## Field Displays

- **FD100, 575F** and **301**

## Additional services

- **NSure** – Lifecycle services for IoT measuring devices and base stations

# Laboratories

 **Snappy**

BY NOKEVAL

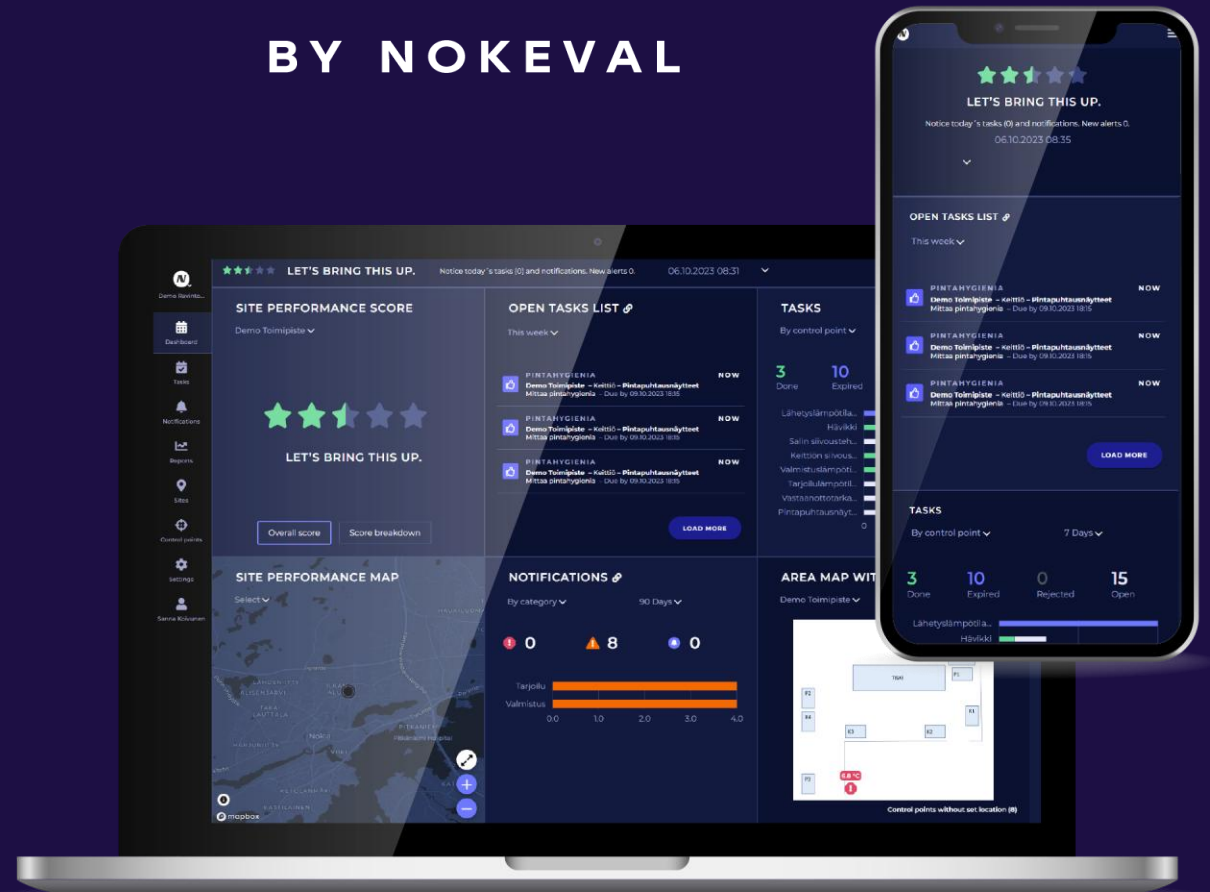
**Nokeval**

# N Snappy

BY NOKEVAL

Digital condition and quality monitoring service for the needs of laboratories and other critical conditions

Our measurement and condition monitoring solutions enhance the daily operations of professionals working in laboratories and ensure high quality and safety in critical conditions.



# Monitoring critical conditions in laboratories



# Monitoring critical conditions in laboratories

Automatic wireless temperature monitoring

Surface temperature sampling measurements: incoming/outgoing materials

Reporting of results and situational overview

Analysis and processing of measurement data

Monitoring of humidity and temperature in storage rooms

Temperature monitoring of storage rooms

Base station for IoT devices

Monitoring of deep freezers

Indoor air monitoring in laboratories

Sampling measurement of product temperatures

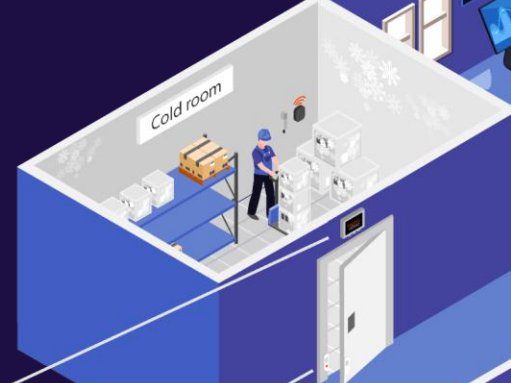
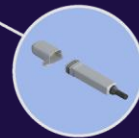
Measurement of water activity

Temperature measurement with an infrared camera

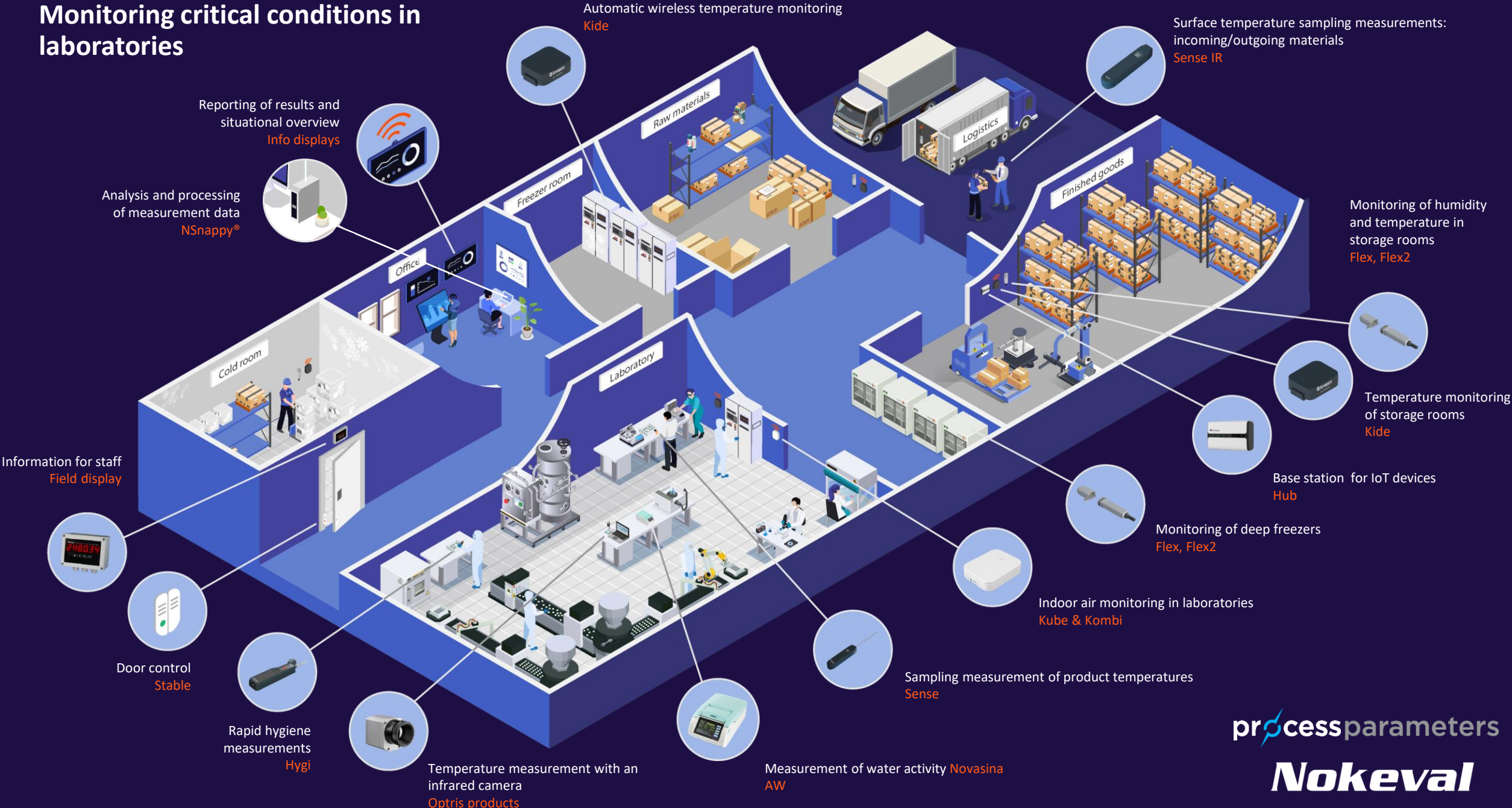
Rapid hygiene measurements

Door control

Information for staff



# Monitoring critical conditions in laboratories



# Off-the-shelf equipment solutions and additional services for laboratories

## Temperature measurement

- **NSnappy® Sense** and **NSnappy® Sense IR** – sample measurements of the internal and surface temperature of products
- **NSnappy® Kide** – temperature transmitter
- **Kide Sky** – temperature transmitter
- **Flex** and **Flex2 Series** – temperature measurement
- **Stable** – LoRaWAN transmitter for temperature sensor and digital inputs
- **Kube** (several models)
- **Kombi** – multipurpose transmitter

## Surface hygiene

- **NSnappy® Hygi** – rapid sample measurement of the hygiene level of surfaces

## Relative humidity

- **Flex** and **Flex2 Series** – humidity measurement
- **Kube** (several models)
- **Kombi** – multipurpose transmitter

## Pressure differences


- **Kombi** – multipurpose transmitter

## Field displays

- **FD100, 575F** and **301**

## Additional services

- **NSure** – lifecycle services of IoT measuring devices and base stations



**We ensure that the quality of work  
remains high and end users are  
satisfied.**

A hand holding a blue pen is positioned over a glowing, abstract background of orange and blue light. The pen is held in a way that suggests writing or drawing. The background has a smoky, ethereal quality with bright orange and yellow highlights against a dark blue background.

# Product development services

Customizable, easy-to-use wireless measurement and monitoring solutions tailored to the customer's needs for better measurement and quality control in critical conditions.

# Solutions tailored according to a customer's needs

- Measuring device
- Cloud service

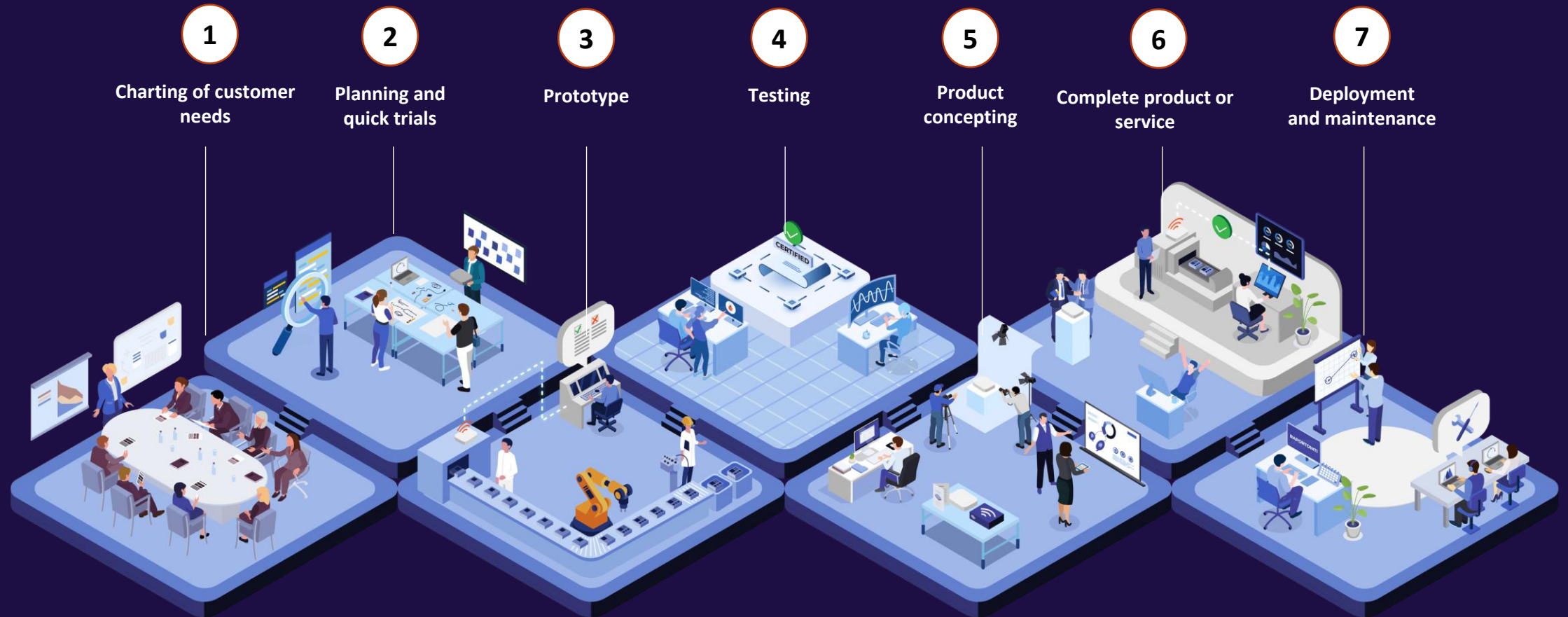
processparameters

**Nokeval**



## Product development services

# Controlled development process and smooth commissioning



A hand holding a pen is shown in the center of the image. The background is a vibrant, abstract composition of orange and blue colors, resembling a flame or a stylized globe. The text "Thank you!" is written in white, bold, sans-serif font across the middle of the image.

Thank you!