AI SIGHT

Unlimited
Machine Uptime

This is AiSight

AiSight makes the machine-health solution for manufacturing in the industry 4.0 era. With state-of-the-art analytics packaged in an easy-to-use system, our solution leverages AI and plug-and-play sensors to monitor the condition of machines in real-time, optimize their parameters, and predict malfunctions.

The Problem : machine breakdowns

Why worry?
Machine breakdowns are a serious threat, leading to:

- High unforecasted expenses (≤€2.5M)
- Productivity loss (≤20%)
- Stress and safety issues for employees

Maintenance contributes to keeping machines safe. Over the last few years, maintenance tasks have been optimized by new technologies within the framework of Industry 4.0. The most advanced form of maintenance is predictive maintenance, which consists of gathering machine data and analyzing it with machine-learning algorithms. Previous solutions have many shortcomings:

- Expensive (≤€10k per sensor)
- Complex to set up (requires setting up IT from scratch and training employees to install and use sensors.)
- Slow to implement (it's necessary to accumulate data over a long time period to train algorithms.)

It's especially difficult to deploy these resources for SMEs.

source https://blog.isa.org/downtime-factory-plant-industrial-costs-risks

How are we different?

For companies of all sizes, we have created a new solution that goes beyond predictive maintenance.

Advanced analysis

Rest assured. Not only is your facility visible 24/7, thanks to continuous monitoring, you can also find the cause of each malfunction, by virtue of our root-cause detection.
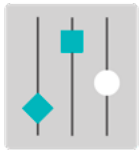
First insights on day one

Our solution is plug and play: it only takes three minutes to install. Our database contains information from thousands of similar machines, so our algorithms require no training. You'll have access to insights on the dashboard on the day of installation.

Complete solution

We take care of everything. Our solution includes certified hardware, our high-quality analytics, an intuitive dashboard, and support through the whole process from installation on.

Saas pricing model

Implementing our solution requires no costly upfront investment. We provide the sensors you need; you pay for the insights you receive. Start with a validation phase and get access to all of the solution's features, with no obligation.

Seamless scaling

How? Thanks to our pre-trained algorithms and plug-and-play hardware, adding a sensor or adapting it to a new machine type requires the exact same time (one day) and effort.

Our solution:
plug-and-play hardware,
intuitive software

AION, THE SENSOR NODE relies on three sensors. Triaxial sensors provide a three-dimensional perspective of machines, enabling the detection of failures such as misalignments and imbalances.

VIBRATION SENSOR

- Triaxial
- 6kHz acceleration bandwidth ultra-wide and flat frequency response range
- User-selectable full-scale range: ±2 / ±4 / ±8 / ±16 g
- Ultra-low noise density

This is the foundation of our analysis. It detects even the smallest vibrations and delivers accurate data to our analytics.

MAGNETIC FIELD SENSOR

- Triaxial
- Reads magnetic fields' effects up to 300Hz

This sensor adds depth to our vibration analysis and contributes to root-cause detection.

TEMPERATURE SENSOR

This broadens our algorithms' knowledge of each machine failure and its cause.

Magnetic mount

- Enables plug-and-play installation
- No interference with data (6kHz flat response)

Your machine is not magnetic? No worries, we provide 13 different accessories, covering every machine without intervention.

Power supply

No need to waste time replacing the batteries in our sensors. We have two power supply options:
- An included power supply compatible with AC wall plugs
- DC cables in a range from 8 to 48 V (with a consumption smaller than 3W)

A continuous power supply enables continuous monitoring of your machines.

Wi-Fi and Bluetooth connectivity

- 30-second provisioning through our custom app
- Usable on any bluetooth device

Through our custom app you can provision the WiFi credentials of your infrastructure to the sensor.
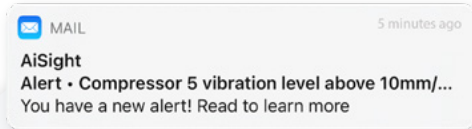No WiFi in your factory? We provide LTE gateways

Certified to deliver

- IP67 (dustproof and waterproof)
- CE certification (makes us ready for rollout)
- FCC certified

In environmental testing, the Aion has not only passed, but excelled.

The Dashboard

User-friendly insight. That's AiSight. Available in DE, EN, and ES.

MAIL   5 minutes ago

AiSight
Alert • Compressor 5 vibration level above 10mm/...
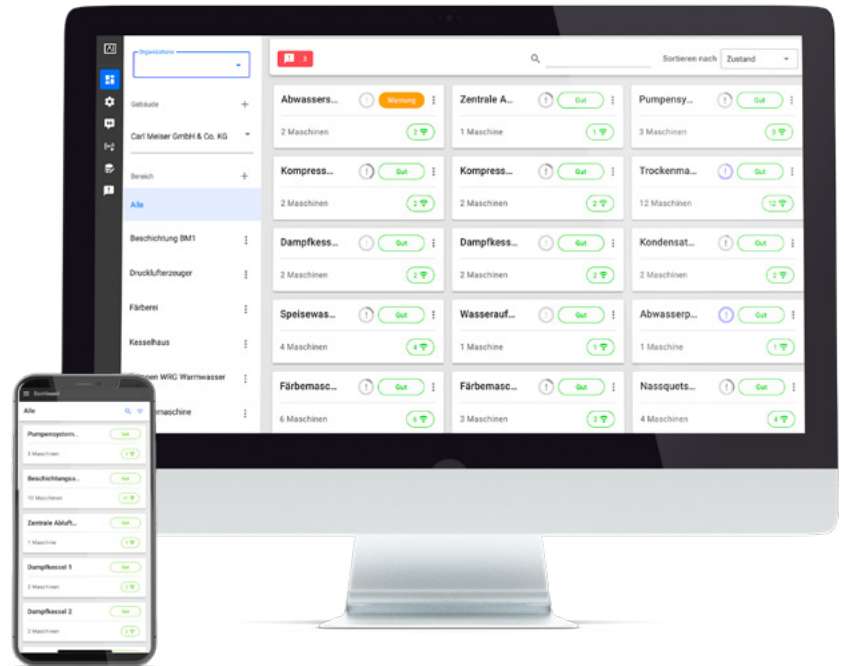You have a new alert! Read to learn more

Never miss an alert

Our solution automatically issues malfunction alerts through the dashboard, and via email and SMS. Immediately.

Each alert tells you:
- Which component is malfunctioning
- Where it is
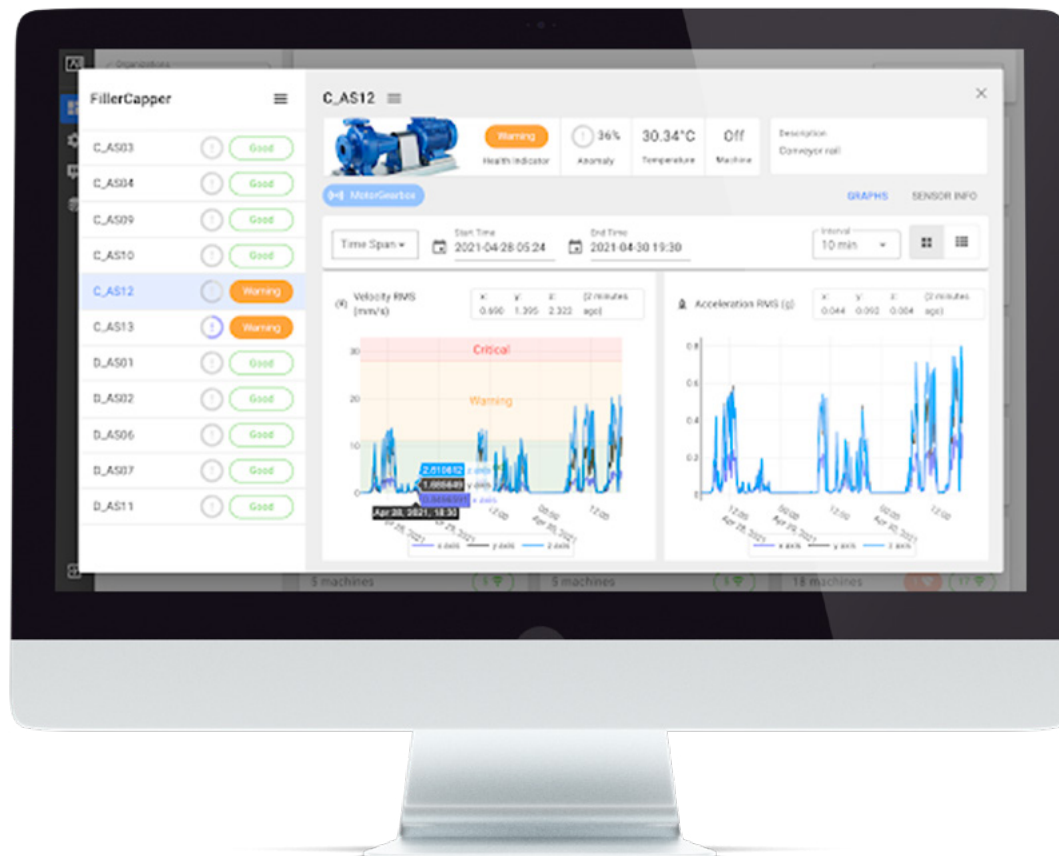- What changed
- Why it happened
- How to fix it

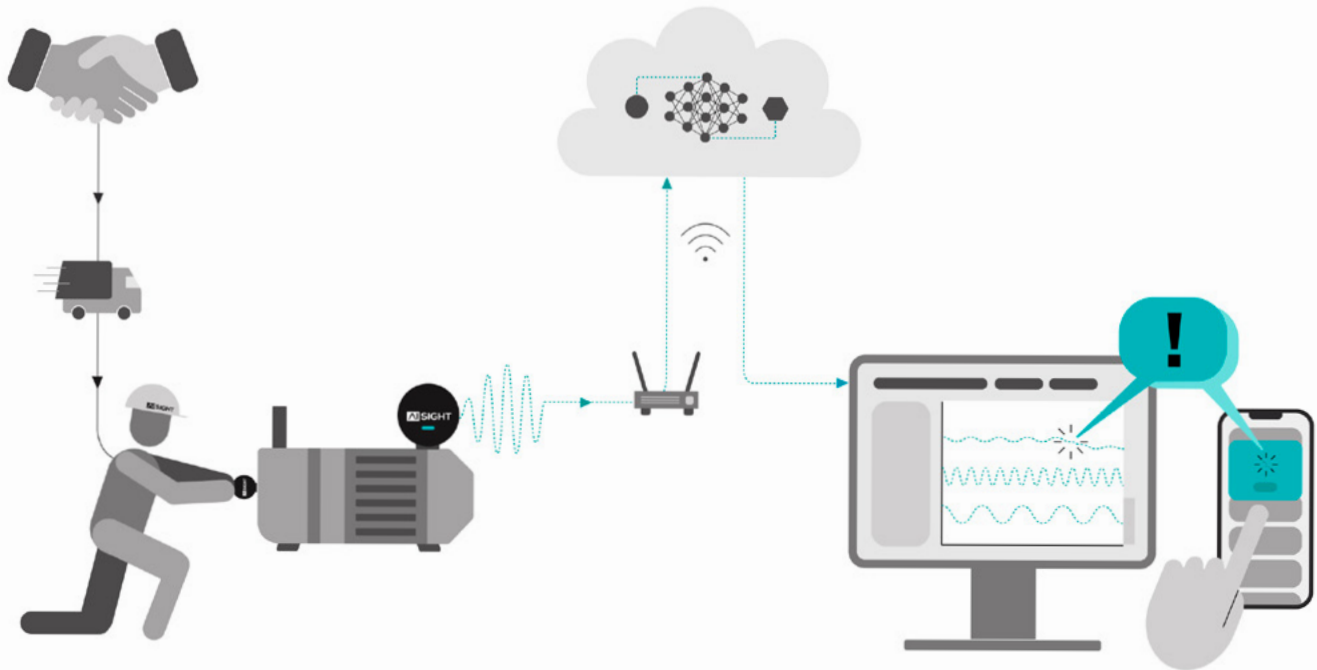## From overview...

The whole factory, available at a glance.
- Assign your machines to tiles.
- Organize the tiles according to priority or location.
- See a summary of each machine's health on each tile.

...to detail

- Expand a tile to see what our sensors detect.
- Discover anomalies, uptime, and advanced analytics; all summarized in simple graphs.
- Check performance in real time (with 5-minute latency) or historically.

How it works

Onboarding

Learn which machines and mounting points to equip. We'll show you how to install the sensors.

Installation

Each sensor only takes three minutes to install. We'll equip you with all the tools, guides, and video tutorials you'll need.

Initial Analysis

As soon as they're installed and connected, the sensors will be online on your dashboard. Our algorithms will perform an initial analysis to adjust to your machine (see next page).

Launch

Your machines are now being continuously monitored. When we detect an anomalous vibration level, you will receive an alert through the dashboard, and via Email and SMS.

Equipment & failures covered by our solution

The machine you want to monitor is not amongst these? Contact us.

	Pumps	Motors	Industrial fans	Compressors
Bearing fault	■	■	■	■
Inner race fault	■	■	■	■
Outer race fault	■	■	■	■
Ball bearing fault	■	■	■	■
Rotor & stator fault	■	■	■	■
Misalignement	■	■	■	■
Imbalance	■	■	■	■
Looseness	■	■	■	■
Poor lubrication	■	■	■	■
Cavitation	*			
Seal breaks	*			
Impeller failure	*			
Chipping blades			°	

* Failures unique to pumps
° Failures unique to industrial fans

Gearboxes

Poor lubrication	■
Gear eccentricity	■
Gear misalignment	■
Gear tooth wear and failure	■

Technical onboarding

Connect sensor.

Enter machine data:
rated power, application (pump, motor, fan, etc.) and foundation (fixed vs. flexible).

Based on this data, our algorithms determine general vibration levels.

What if the machine already has a failure?
An automated vibration analysis is performed to check for preexisting vibration patterns indicative of failures.
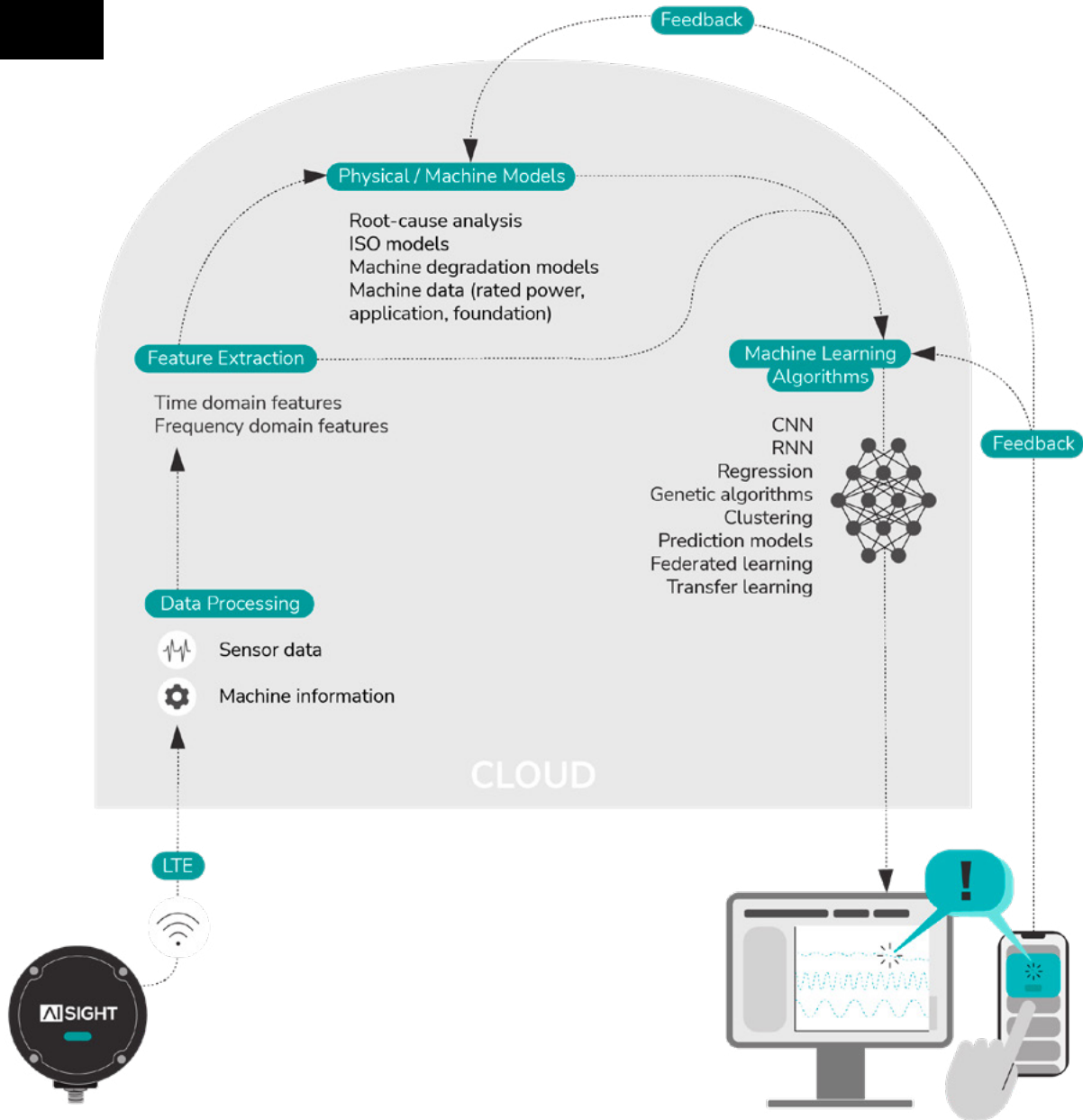
If a failure is identified,
The customer receives an alert.

If no failure is identified,
The data we gathered is labeled as healthy data for our anomaly model.
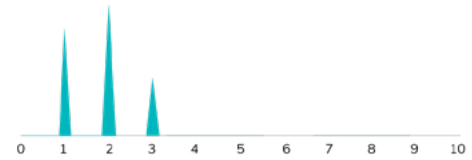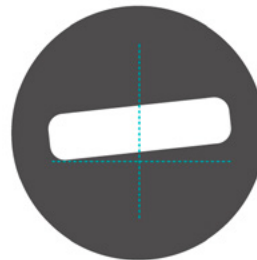
How root-cause analysis works

Each failure has a specific vibration signature, which our machine-learning algorithm can identify.
That's how AiSight identifies the root cause of machine errors.
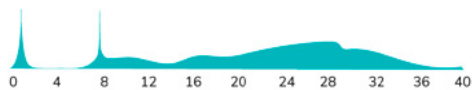
Misalignment

Bearing fault

Imbalance

Cavitation / Soil / Dry Run

The impact

Our solution brings value to your production facilities, and to your business in general.

For the business

✓ Continuous monitoring makes real-time decision making possible.

✓ Improve quality assurance with machines operating at maximum efficiency.

✓ Reliable machines mean no more production loss and damaged goods.

✓ Avoid production interruptions - plan maintenance work in advance

For the production facility

✓ Focus on your core work instead of keeping things working.

✓ Plan maintenance and tasks with minimum disruption and no stress.

✓ Optimize inventory, ensure that the right materials are on hand: never run out or overstock.

✓ Reducing machine failures improves worker safety, increases efficiency, and promotes sustainable use of resources.

Our typical case study in numbers

per 100 installed Aions

3 min

to install one Aion

1 day

to get Aions online
and adjust the algorithms

2 days

first issue identified

20

unplanned breakdowns
identified within a year

16k€

saved by timely machine
replacement

20%

efficiency loss prevented
from a single detected issue

320k€

saved in one year

3 months

time to ROI

About AiSight

Management

Matthias Auf der Mauer
Founder and CEO

Max von Düring
Founder and CCO

Renan Duarte
Founder and CTO

AiSight makes unlimited machine uptime a reality. Founded in 2018, based on the potential for advanced AI to fill the need for an easy-to-integrate predictive maintenance solution, AiSight has developed a solution that goes beyond predictive mainte-nance, into the realm of machine diagnostics. Today, as part of Sensirion Connected Solutions, AiSight's 24/7 machine-moni-toring solution has the ability to not only predict malfunctions, but to detect process errors, and protect overall machine health.

AiSight is currently reducing downtime with:

**Contact us to start
your journey towards
unlimited machine uptime**

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