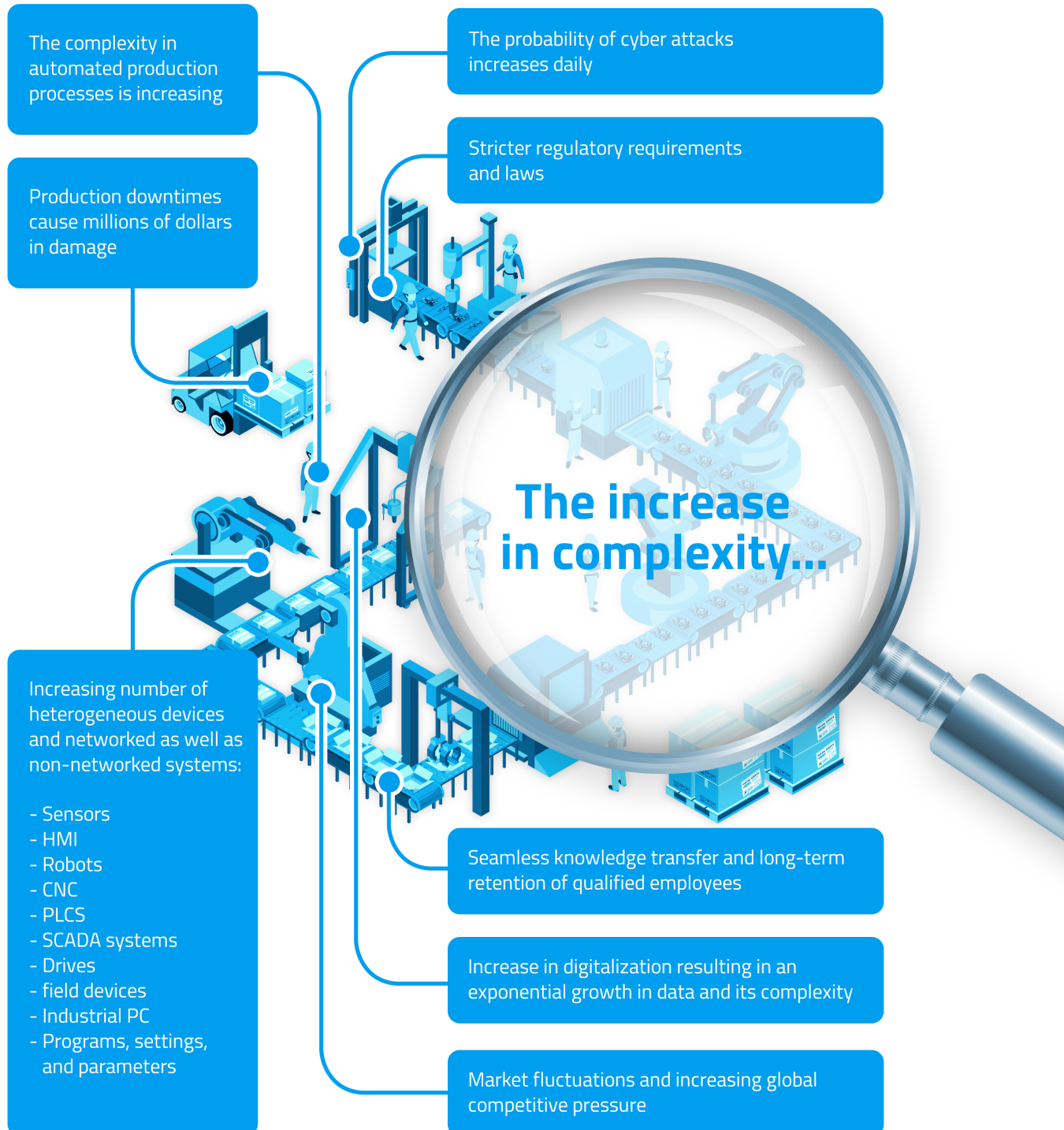




Achieve complete control over your production environment and industrial automation

Greater data consistency, security, safety, and reliability, thanks to backups and version control





OVERCOME THE CHALLENGES OF DATA MANAGEMENT

Skillfully manage complex industrial production environments

Irrespective of the sector, company size, or task, you'd be hard pressed nowadays to find an industrial production environment that does not rely on a complex IT setup. Even more so, one that is not having to deal with an ever-increasing **amount of production data**. While scheduling routine backups and managing data storage are standard practice when it comes to classical business IT, it is still relatively new with regard to industrial production and operational technology (OT).

The increasing complexity of industrial environments is just one of a growing number of challenges that are faced by the industry. Operations managers and maintenance staff now encounter a steadily increasing number of SCADA systems, PLCs, sensors, and field devices. In addition, there are also a variety of machines, robots, drives, and industrial PCs, which are used to control the parameters and preliminary settings of a production environment.

If that weren't enough, there are also production environments, which are more often than not, only partially digitalized/networked. Depending on the sector and the challenges, **regular retrofits** are also common practice.

The advancement of **automation and digitalization** contributes to an exponentially increasing amount of data sources and measurable data, especially where the Industrial Internet of Things is concerned. Data streams therefore need to be processed, managed, and utilized. This presents operations managers and engineers with a great number of challenges.

Such challenges are difficult enough to deal with when it comes to carrying out normal operations in a running factory, but they take on a whole new degree of difficulty when partial or total **plant shutdown** occurs. If even part of a production environment shuts down, the cost of the damage incurred can quickly run into the millions.

The topic of **IT security** and safety is also growing in importance. In the past, malware attacks were primarily aimed at exploiting general security vulnerabilities. Today, targeted **cyberattacks** on specific companies are all too real a threat. Production downtime - brought about as a direct result of such attacks - has been responsible for record losses in recent years.

One in ten companies have had their very existence threatened as a result. If you take into account disruptions caused by **technical errors, human error, or negligence**, and add them to those caused by cyberattacks, the sheer scope of the problem becomes very apparent.

PLEASE TAKE THE TIME TO ANSWER THE FOLLOWING QUESTIONS:



Do you know – at all times – where configuration settings and program data are stored and how up-to-date these are?

Based on your available production data, are you able to make effective and informed decisions?

Do you have a plan in place in the event that partial or total plant failure / downtime occurs?

In the event of failure, are you able to easily and quickly restart production and restore the default settings of your automated machinery?

Have you been able to do all of this when faced with disruptions that were not brought about by outside interference? Would you be able to continue to do this in spite of the increasing threat posed by cyber criminals?

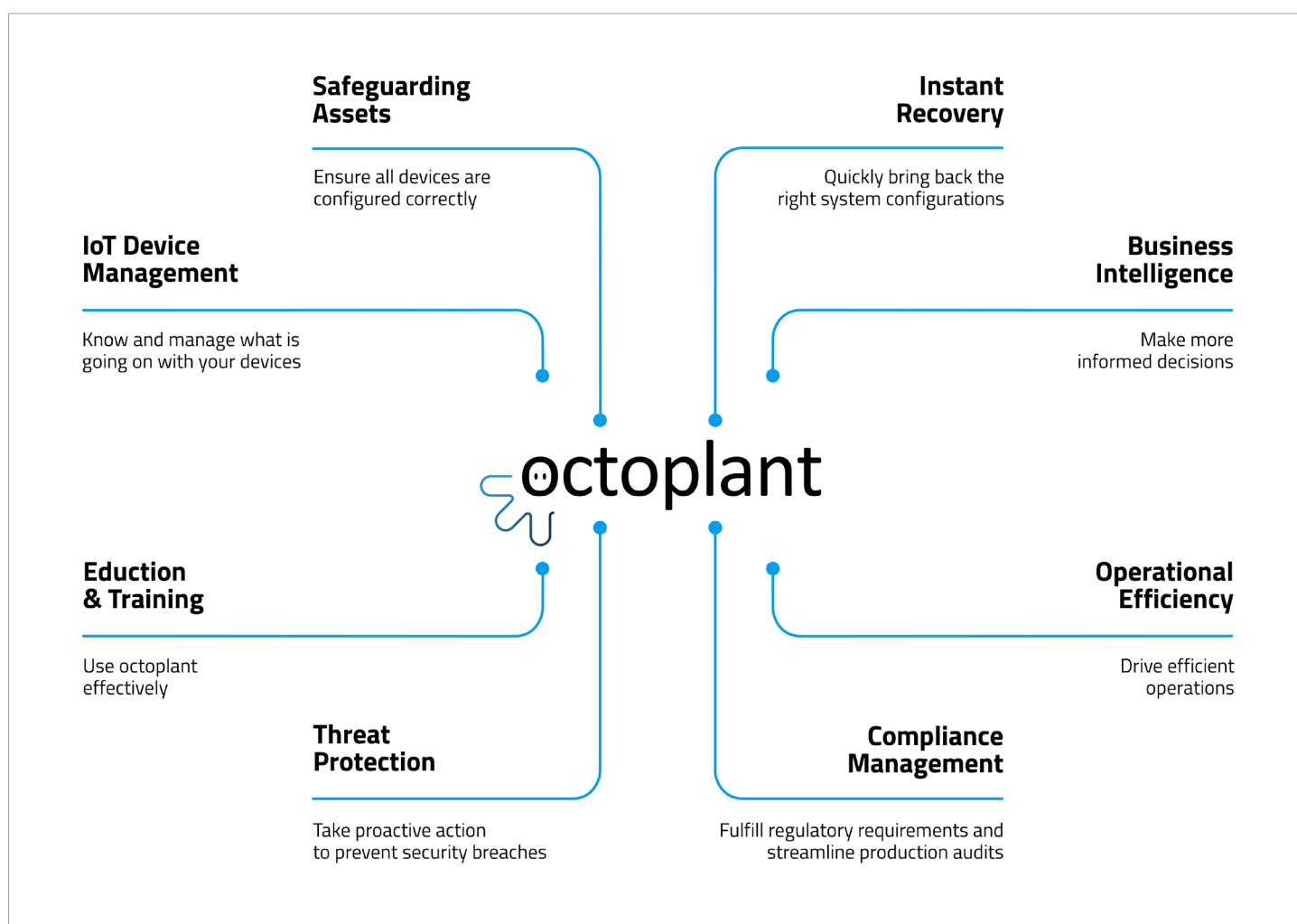
Our software platform | AUVESY-MDT provides both device management and backups in one single solution

AUVESY-MDT provides its customers with a modular solution that helps them meet their requirements and offers adequate solutions to common challenges known to plant management.

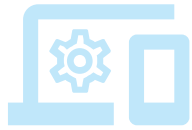
The octoplant platform provides customers with a holistic summary of their plant and shows them the information they need – when they need it – thanks to dashboards, which can be customized to suit the role of the user.

The octoplant platform is comprised of eight solution sets which offer features, tailored to specific industrial needs, to help prevent downtime, errors, and security issues.

octoplant centralizes the management of your entire production environment in one system and includes the following features:



The octoplant platform - tailored to your specific industry needs.



Know and manage what is going on with your devices

1. IoT Device Management

octoplant is vendor-independent and can connect to all commonly found automated production and IoT devices. As a central data management platform, it manages programs and configuration settings data in a standardized manner. By doing so, the solution ensures transparent management of complex information in a way that is both manufacturer-independent and solution-neutral across all common industry standards. It's robust change history shows **who changed what, where, when, and why, at a glance.**



Ensure all devices are configured correctly

2. Safeguarding Assets

By backing up assets, users can sleep soundly at night because octoplant helps safeguard automated production and ensures that the correct authorized version is always running. With complete version management, plant operators across the board always have access to the latest version and can see whether changes are required. The process of creating backups is automated – saving time and labor, reducing errors, and ensuring a reliable **data snapshot of the entire production environment.**



Quickly bring back the right system configurations

3. Instant Recovery

octoplant's capacity for instant recovery ensures that all necessary programs, data as well as the settings made within the scope of machine automation are available and are running correctly. It also allows for production to be **restored at any time.** In the event of an emergency, octoplant enables production environments and devices to be restored quickly as it eliminates the need to search for the last previously functioning version.



Make more informed decisions

4. Business Intelligence

octoplant consolidates the data of complex, fragmented production environments in one easy-to-use data management platform. It helps ensure that data is easy to analyze and thus **guarantees better, safer, and faster decision making.** Data can also be exported at any time. This solution provides **valuable insights,** allowing the user to compare different production locations and devices, and helps aid reliable predictive maintenance.

5. Operational Efficiency

Octoplant enables companies to increase overall equipment effectiveness (OEE) by digitally connecting information from field, control, supervisory, and enterprise levels. octoplant adapts to existing workflows and (by comparing servers) provides information on how efficiently components are being used, and how frequently changes to specific components are being made. Guidelines and best practices for assets and configuration settings data can lead to an **increased level of standardization** and **efficiency**.



Drive efficient operations

6. Compliance Management

Integrated documentation and regulatory workflows, such as those for the release process, help ensure reliable and **seamless compliance management** in which risks are reduced resulting in a rule-compliant, traceable, and auditable production process. Octoplant supports compliance with **legal standards** such as the KRITIS IT security law, the FDA 21 CFR Part 11 regulation, and GxP rules to ensure process quality, production documentation and proof of compliance.



Fulfill regulatory requirements and streamline production audits

7. Threat Protection

Thanks to its proactive vulnerability, change, and risk detection features, octoplant's holistic security architecture is able to protect production environments from attack, **prevent damage, and avoid downtime**. It breaks down the automatically assigned, regularly updated asset risk score for each inventory asset. Therefore, AUVESY-MDT's solution can be used to prevent/reduce damage and shorten/ **avoid downtimes** thanks to its vulnerability, change, and risk detection features.



Take proactive action to prevent security breaches

8. Education & Training

Finally, due to **effective knowledge transfer**, companies can help preserve their own production-specific knowledge and pass it on to new employees. The comprehensive e-learning platform enables employees to continue learning about octoplant anytime and anywhere. Best practices in the form of videos and webcasts can help improve job skills for everyone involved and ensure **rapid onboarding** when it comes to new equipment or production lines.



Use octoplant effectively



Visible benefits for your plant | **How companies can profit from** **digital plant management and** **production documentation**

When it came to developing and launching AUVESY-MDT's asset management platform, the market leader in version control and change management software drew on their first-hand experience with 3,200 installations and 2,500 international customers. octoplant's features are used in 10 million devices in total.

The primary goal was - and still is - to help production companies address pressing challenges related to asset management, backup, version control, and process documentation, in a modern and straightforward way.

Centralized and transparent data management that gives you a 360-degree overview of your production environment

octoplant supports fully integrated IoT ecosystems and provides users with a clear summary of their entire production environment. It is transparent, vendor-independent, and solution-neutral across all common industry standards. The plant management solution is compatible with a wide range of automation devices and offers an unmatched number of supported devices, when compared to competitors.

Other solutions only capture individual machines or partial aspects of a production environment, such as PLCs, SCADA systems, HMIs or robots. Only components from a specific manufacturer, bus system, or standard are analyzed. This is an obstacle when it comes to rapid troubleshooting. AUVESY-MDT's products have the largest compatibility base with regard to manufacturers and devices.

A robust software solution needs to be capable of summarizing the entirety of an automated production environment and analyzing devices on the shop floor. octoplant can detect differences between operating systems and firmware versions, even for identical sensors. This makes it easier to isolate errors by processing data from sensors and field devices in a direct and unfiltered manner. octoplant allows you to directly communicate with almost all IoT devices in a production environment.

Take a look at our website to find out which devices are supported: auvesy-mdt.com/en/device-finder



"The decision to bring in versiondog was born out of a desire for a comprehensive and uniform overview for all projects and versions in production and maintenance.*

We also wanted to unify all automated data for all user groups, including our overseas-based technicians, into a single system.

These expectations were fully met with the introduction of versiondog."

Jan Petersen
Production engineer at
Siemens Energy AS

** versiondog was the former software solution from AUVESY GmbH*

How asset inventory can help safeguard against hackers and unauthorized changes

Regardless of whether you are a DAX company or a middle-sized enterprise, today, every production organization could be targeted by cyberattacks. Ransomware attacks, in particular, are affecting the operation technology (OT) in industrial plants at an increasing rate, and these attacks do not limit themselves to targeting IT infrastructure alone.

The Asset Inventory Service from AUVESY-MDT improves the security of your operational technology, and gives you the perfect opportunity to assess whether the machines and devices that have been integrated into octoplant are up-to-date and can be backed up. It enables users to carry out risk analysis to determine whether there are cyber security vulnerabilities.

All of this helps in day-to-day operations but is even more critical when it comes to quickly uploading the backup (the last previous version) in the event of a cyber attack. Doing this ensures that operations in a plant can be quickly restored and the cyber attack stopped. Given the ongoing and rapidly rising costs brought about by a production shutdown, it is clear that investing in such a system is money well spent.



"Cyberattacks are a real danger to us. When it comes to safeguarding against attacks from outside, it is more advantageous to have a larger shield than a smaller one!"

"The ability to trace all incidences of data access, including the timestamp, was what led to the decision to integrate versiondog."

Matthias Teitge
Head of Plant Management
at Hofbrauhaus Wolters
brewery

** versiondog was the former software solution from AUVESY GmbH*

Automatic backups reduce downtime and enable swift disaster recovery

In the event of partial or total failure, a program backup ensures that fast disaster recovery can be carried out in order so operations in a plant can be resumed. AUVESY-MDT's software solutions enable users to use the last backup to restore production at a push of a button, so that production is up and running within minutes. This is important because every hour of downtime costs a company money and puts supply chains at risk.

The transparency provided by a plant backup solution has a direct influence on whether a plant can be restored accurately and quickly in an emergency. Version control – the consistent logging of changes – is another important factor, especially when it comes to troubleshooting and documentation. This process in octoplant is fully automated. The only manual task that the user needs to carry out is to enter a change reason when a new version is created.

On average, it takes maintenance staff 3-4 hours per week to track down correct changes when using a manual approach to manage program versions. octoplant automatically creates backups of program files and compares them to identify any differences. AUVESY-MDT's software solutions help you see the current and correct status at all times and provides maximum clarity with tabular and graphical presentation of changes, which makes it possible to see what changes have been made and why.

In order to reduce downtime and facilitate rapid disaster recovery, it is important to be able to restore the last authorized version, or even an earlier version – especially if this earlier version was the last time at which the system was operating smoothly before a malfunction occurred.

Backups created with AUVESY-MDT's software, help to maximize plant availability and save time. Just like Notebook backups, it only takes a few clicks to restore a status. This can be done for a single automation device/machine, as well as for the entirety of a complex plant, even if that plant consists of several hundred/thousand devices, sensors, hardware, and software.



"With versiondog, we always know the current status of our production plants. versiondog* makes our work easier, saves us time and gives us end-to-end clarity on what changes have been made.*

"You can't get better quality than that!"

Hassan El Haddad

from MAS Automation works as technical automation specialist at HTD, Tata Steel Europe

** versiondog was the former software solution from AUVESY GmbH*

Audits and documentation – Mandatory across many industries

The importance of straightforward and consistent documentation varies from industry to industry. In sectors related to processing engineering – such as chemical, pharmaceutical, and food and beverage – it is particularly important. Companies, whose critical infrastructure is subject to the German government's CRITIS Directive and the EU's new NIS 2 Directive, and the U.S. FDA regulations, are no doubt well aware of the strict documentation obligations.

When settings and changes have to be submitted to supervisory authorities or insurance companies, as part of production audits and liability issues, data transparency – with regard to processing – is a must. Questions like who changed what, where, when, and why must be clarified promptly and proven beyond doubt, especially when anomalies or accidents occur.

AUVESY-MDT software solutions help you achieve greater legal compliance due to audit trail reports and traceable cause-and-effect relationships. Both are legal requirements, as seen in the current legislation pertaining to IT, and help to facilitate the presentation of evidence to third parties in the event of errors. Our software also helps reduce liability risks in the case of certification, which itself is subject to a different set of strict international rules. If this is of interest to you, talk to our industry experts and let them show you how your specific requirements can be optimally implemented.



"The fact that backups can not only be saved, but also compared with each other is an enormous help to us, especially during audits."

The software is set up: all new projects are stored in versiondog as standard. I see no reason as to why we would ever do without this system again."*

Gilles Gaeng
Technical Manager of
Maintenance & IT at
thyssenkrupp Automotive
Systems GmbH

** versiondog was the former software solution from AUVESY GmbH*

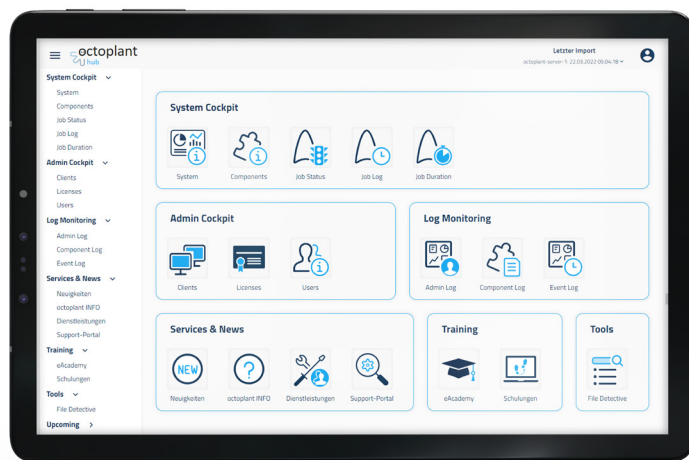
Data processing and monitoring for target-orientated Business Intelligence

Investing in a modern data management platform is not merely a means to an end for industrial companies, it should also help generate economic growth and increase plant efficiency. After all, mastering and generating added value from data is more important than simply having it.

An abundance of data is both a blessing and a curse, as it frequently makes it difficult to detect patterns and differences – when problems arise in production – and then draw the right conclusions from them.

octoplant provides companies with optimal evaluations and KPIs, and in doing so enables regular monitoring of production-relevant figures. Monitoring requirements for specific target groups can be displayed in dashboards. A CEO needs different information than a plant manager or maintenance supervisor; an IT manager focuses on different areas than a machine or plant manufacturer; and an automotive supplier faces different challenges than a chemical or pharmaceutical producer.

In any case, being able to clearly display information – whether in a graphical or tabular form – provides greater knowledge, especially when it comes to individual production units or devices. It ensures that your specialists and managers are able to use AUVESY-MDT's software solutions to the fullest.



All relevant automation technology data is united in octoplant and can be viewed at-a-glance via intelligent dashboards

They can draw comparisons between several sites and access critical information that regularly benefits the company.

The way in which data is processed will be further optimized in the future with custom dashboards and the enrichment of external data sources, which will add additional business intelligence potential.

Companies that invest in AUVESY-MDT's software solutions will gain overall improved effectiveness of their assets that can be generated from a data-based analysis of processes.

octoplant - tailored to your specific industry needs and individual requirements

AUVESY-MDT's software is your go-to solution when it comes to reliable asset management and straightforward IoT device management – thanks to reliable backups that can be restored quickly and securely in the case of an emergency. Whether AUVESY-MDT is helping customers achieve operational and organization efficiency, or enhancing business intelligence – the company does it all.

Their software is straightforward and easy to implement. Manufacturing companies can start small by networking/deploying the software platform at individual sites. Over time, the software can then be transferred and scaled to other plants worldwide.

Learn how automatic backups of your devices and plants can contribute to greater safety, security, and reliability. Find out why version control and logging changes is so important when it comes to maintaining a complete plant view, especially in the event of an emergency.

	Core	Plus	Premium
IoT Device Management			
Safeguarding Assets			
Instant Recovery			
Business Intelligence			
Operational Efficiency			
Compliance Management			
Threat Protection			
Education & Training			

AUVESY-MDTs octoplant solution will be offered as part of a subscription model. This will help companies reduce acquisition costs and maximize their flexibility. Customers will be able to decide which parts of the system they wish to use in the future and which functionalities are most suitable for their own production environment.

As a result, companies will be able to scale easily and, together with AUVESY-MDT, grow at their own individual pace. We urge customers to contact us so that we can determine which product package suits them best.

The three packages available are Core, Plus, and Premium.

Find out more | How AUVESY-MDT's solutions can help your company guarantee reliability in your production

AUVESY-MDT's intelligent solutions reduce the manual effort in plant management and therefore ensures greater safety, optimized reliability for production, and consistent product quality. More than 2,500 companies and groups across numerous industries already entrust AUVESY-MDT's software with more than 10 million monitored components.

As part of a recent customer survey (which focused on versiondog, one of the foundations for the octoplant platform), AUVESY-MDT looked at how customers use its software solutions and how they evaluated them. According to the results, 96% of customers agreed with the statement that they save time thanks to AUVESY-MDT's solutions.

For 73% of customers, availability of data/documentation was the biggest benefit. Three quarters of all customers surveyed said that they cannot do without AUVESY-MDT's solutions. The survey also showed that the topic of security is becoming increasingly important.

As many as 6 out of 10 customers stated that the increased security, which they have gained from implementing AUVESY-MDT's solutions, was one of the strongest arguments for implementing the software.

Customer trust in our solution:

—

96%

...would recommend AUVESY-MDT.

—

84 %

...agree with the statement that they save time thanks to AUVESY-MDT.

—

73 %

...see the availability of data & documentation as the biggest advantage.

—

AUVESY-MDT

The world market leader in version control for automated production environments.

With over 150 employees and our own subsidiaries in Germany, USA and China, we support our customers with over 3,200 installations in more than 50 countries worldwide together with our partners. These come from various industries and use our solutions to manage and safeguard their automated production environments.

Use cases range from managing IoT devices and enabling disaster recovery, to increasing operational efficiency or preventing cyber security breaches.



GERMANY

AUVESY GmbH

Fichtenstraße 38 B
76829 Landau in der Pfalz

+49 6341 6810-300
info@auvesy-mdt.com
www.auvesy-mdt.com



OFFICE USA NORTH

AUVESY Inc

146 Monroe Center St NW / Suite 1210
MI 49503 Grand Rapids

+1.616.888.3770
info@auvesy-mdt.com
www.auvesy-mdt.com



OFFICE USA SOUTH

MDT Software

3480 Preston Ridge Road
Alpharetta, GA 30005

+1.678.297.1000
info@auvesy-mdt.com
www.auvesy-mdt.com



OFFICE CHINA

AUVESY Data Management Solutions Co., Ltd.

Jinma Lu 3, Maqun, Qixia District, Nanjing

+86 25 52235097
info@auvesy-mdt.com
www.auvesy-mdt.cn