canias

IOT BROŞÜRÜ

NEXT
MAINTENANCE
72:32:51

OPERATING TIME
01:51:33

QUANTITY
PRODUCED
1.150 ST.

PLANNED
OPERATING TIME
04:39:21

Connected

OPEN UP
NEW
POSSIBILITIES

Network your production today
with canias4.0 technologies.

What exactly is IoT/IIoT?

What advantages do I have?

✓ The intelligent networking of man and machine

✓ Evaluate data to work more efficiently and profitably

✓ Transforming business requirements into competitive advantages

✓ Increased productivity through reduced downtime

✓ Real-time data for better decision-making

✓ Anticipatory and effective way of working

IOT or Internet of Things refers to the IOT refers to the use of networked devices, machines and even entire industrial plants. These are equipped with sensors, software and technology to network them with other devices and systems via the Internet. Collect data in real time, monitor and analyze it, and gain insights to increase efficiency and profitability. The key here is to collect the right data from your value chain to generate the desired added value.

The use of IOT in industry opens up a multitude of new possibilities and opportunities. By networking all processes, it is possible to make the world smarter and better than ever before. Connecting machines smartly and making processes smarter transforms business requirements into competitive advantages, providing sound information for efficient and cost-effective decisions. IOT enables companies to increase their success today and set the course for a more successful and sustainable future.

Through the use of IoT, machines, tools and plants are linked with each other. Individual processes and entire process chains are automated through this communication between the individual components. The advantage here is that machines can be monitored and controlled from anywhere in the world. This brings particular advantages in maintenance and in the event of malfunctions, as well as an overview of capacity utilization.

With more than 30 years of experience in ERP solutions, we are able to offer you a customized IoT solution that helps you increase your business value, improve efficiency and reduce operational and maintenance costs. reduce maintenance costs. Simply, quickly and sustainably, we connect people, machines and information using Big Data to increase your business efficiency in a secure environment.

Is my production IOT capable?

How do I implement IOT ?

✓ Is there hardware that can be networked?

✓ Is there software for mapping and processing data?

✓ Is a suitable connectivity infrastructure in place?

✓ What goals are you pursuing?

✓ Which areas do I want to network (production, logistics...)?

✓ Which package is most suitable for me?

Our IoT solution is easy to install, configure, compatible with current technologies and therefore ready to use in a few steps. Communication is done with simple basic settings without complicated configuration settings. Due to these innovative and flexible features, even different machines and production lines as well as constantly changing requirements of the machines do not pose a problem.

With our IOT boxes, easy access to data from devices and sensors is possible. In addition, they offer suitable inputs and outputs for communication via electrical signals and thus act as an efficient interface between production and ERP. between production and ERP.

The prerequisite for sustainable success is a detailed evaluation of what can be optimized, which prerequisites are given and how an optimal connection can be implemented. We are your contact, listener, supporter and always at your side on the way to your Smart Factory. Our focus focus is on ensuring that your IOT solution is fully tailored to your company structure and your needs. your needs. We therefore follow specific phases of project implementation, which we go through together with you.

We come from the industry and know your requirements exactly. Thanks to the high flexibility and simplicity of the connection, we can offer you different options for the implementation. Cost-efficient and completely according to your needs. Thanks to our self-developed IOT-devices we can also support you in retrofitting your existing production lines and thus offer everything from a single source.

Exemplary use

IOT in production

Monitoring production equipment for proper functioning is one of the most basic requirements for performance and safety.

Quality management without IOT for these plants is based on a thorough analysis of the actual condition. Today, this is done by visual inspection and mainly during plant shutdowns.

An IOT connection brings particular advantages in maintenance and in the event of malfunctions, as well as the utilization overview.

By digitizing these plants with IOT and the associated data analysis, downtimes for testing the plants can be avoided.

can be avoided. IOT provides all the data needed to assess wear and tear and maintenance intervals.

✓ Simple and fast installation/retrofit

✓ Reliable data transmission

✓ Reduction of unplanned plant shutdowns

✓ Increase of plant transparency and plant availability through permanent monitoring

✓ Saving of manual and expensive maintenance due to automatic measurements

✓ Easy monitoring, control and utilization of production

✓ Planning ahead by responding through real-time data
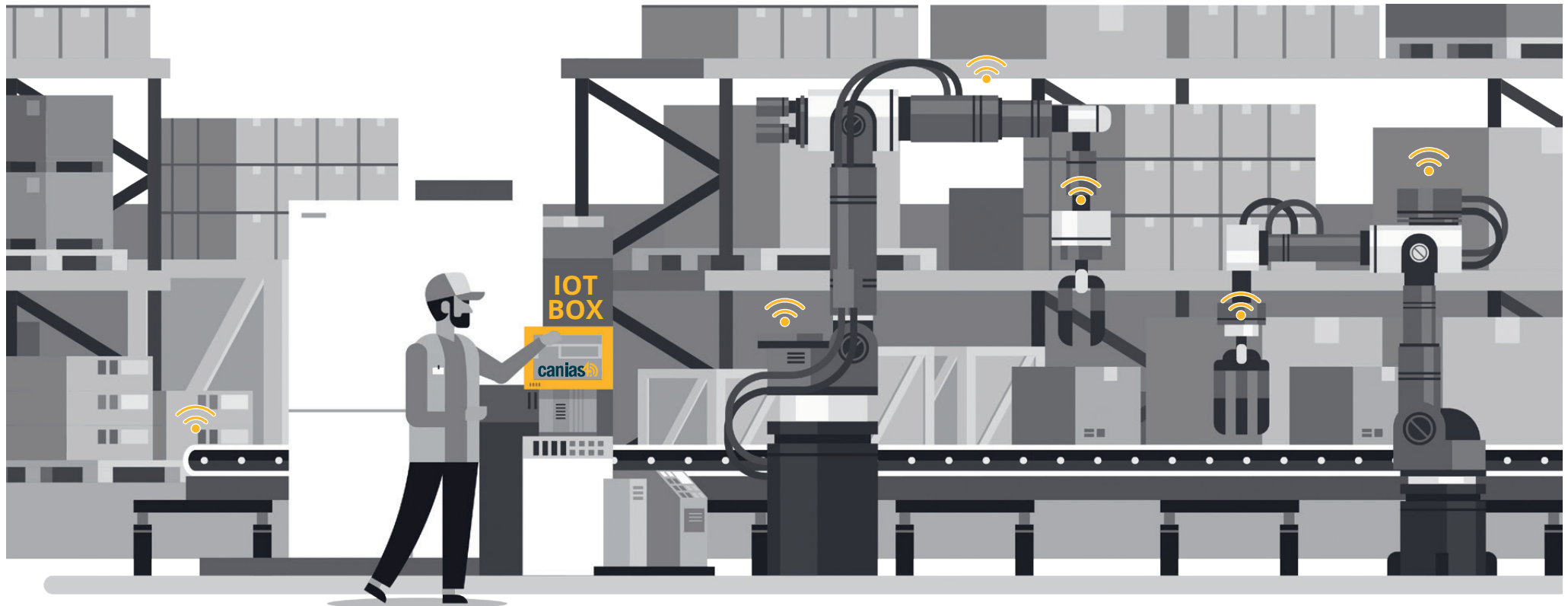
Dynamic planning
Check and adjust production plans flexibly at any time.

Identify errors:
Get insights into errors and easily find their root causes.

Measurability:
Measure all processes and their performance in real time.

Accessibility:
Get analyses and reports to measure machine efficiency.

Full overview:
See the performance and quality of your processes at any time.

Efficiency:
Increase efficiency and increase effective working time.

Infinite possibilities

Advantages at a glance

Gain valuable information

The more machines are networked, the faster valuable data on processes can be obtained and easily made available centrally. For example, measurement data can be collected for machine maintenance or information for efficient resource planning.

Lower operating costs

IOT-supported machines and systems can optimize workflows and reduce operating costs because information is provided in real time. It is also possible to easily keep devices up to date with the latest technology and apply updates.

Increased productivity

Employees are able to respond quickly and efficiently to changes in processes or productivity with the support of IOT, helping them make smarter decisions.

Improved insights for business development

Collecting data internally and externally for better business
For example, logistics companies can use IoT support to organize delivery locations and schedules in such a way that employees and vehicle fleets are deployed as efficiently as possible.

Better customer experience

By using IOT, customer data can be tracked, analyzed and monitored more quickly. This makes it possible to predict changes or trends in customer behavior.

Cost-efficient and entirely according to your needs

We come from the industry and know your requirements exactly. Thanks to the high flexibility and simplicity in connec-tion, we can offer you various options for implementation. Cost-efficient and com-pletely according to your needs.

The IoT solutions from canias4.0 IoT-Box IO (l.) IoT-Box Touch IO (r.)

#1 Standard

IOT connection with all components and features easily installed, configured and ready for use in just a few ready for use.

#2 Slight adjustments

IOT connection with all components and features as standard with little to medium customization for special requirements and needs.

#3 Extensive individualization

IOT connection with all components and features fully individualized and adapted to your requirements and needs of your company. needs of your company down to the finest detail.

Our IoT solution is easy to install and configure and therefore ready for use in just a few steps. Communication takes place with simple basic settings without complicated configuration settings.

The infrastructure is compatible with current technologies. This makes it easier to support new communication protocols, which is one of the biggest challenges in automation systems. In different industries, machines and pro-duction lines can be very different and change over time. With canias4.0, this is not a problem.

IoT Box IO
With our ERP solution, you can access data from devices and sensors via the IoT-Box IO. It also provides inputs and outputs for communication via electrical signals.

IoT-Box Touch IO
The IoT-Box Touch has a touch screen on which data can be entered and displayed directly from the operating device. In ad-dition, it has inputs and outputs for com-munication via electrical signals.

The IoT Box family

IoT Box IO

The IoT-Box IO is equipped with input and output connectors and and is a low-cost and low-power small computer with a Linux-based Linux-based operating system that runs the canias4.0 client and other necessary applications such as web browsers, PDF viewers and office applications. It has an IO module that enables communication with other devices and offers a wide range of digital and analog communication options: OPC, OPC/UA, MT Connect, MQTT, Siemens S7, MODBUS TCP, CANBUS.

IoT Box Mini

The IoT-Box Mini has the same functions as the IoT-Box IO, but does not contain an IO module.

Processor

6 Core ARM Cortex CPU at 2.4 (4 core) & 2.0 GHz (2 core) Mali-G52 GPU with 6xExecution Engines (800Mhz)

Memory

1 x eMMC 16 GB 1 x microSD card reader

Network

1 Gbit RJ45 Ethernet (supports 10/100/1000 Mbps) Optional WiFi USB adapter

Video

1 x HDMI 2.0 (up to 4K@60Hz with HDR, CEC, EDID) 1 x Composite Video (3.5mm jack)

USB

4 x USB 3.0 host ports (share one root hub)

IO connections

4 x digital inputs, 4 x digital outputs, 2 x analog inputs, 2 x analog outputs, 2 x PWM inputs, 2 x PWM outputs, 1 x RS485 / RS232 connector, 1 x I2C connector,
1 x Onewire connection (optional)

Other

On board RTC (real time clock) Built with large passive heat sink Active cooling fan (optional)

IoT-Box Touch IO

IoT-Box Touch IO has all the capabilities of the IoT-Box IO and additionally has a 15.6 inch touch for direct reading or input at the machine stand.

With the IoT-Box Touch IO, it is possible to combine all the functions needed for data communication, ERP integration, and the operator panel in one single, compact and yet powerful device.

IoT Box Touch

The IoT-Box Touch has the same functions as the IoT-Box Touch IO, but does not contain an IO module.

A very useful, compact device that can be used in the production environment when you need the IoT functions but no digital and analog connections.

Processor

6 Core ARM Cortex CPU at 2.4 (4 core) & 2.0 GHz (2 core) Mali-G52 GPU with 6xExecution Engines (800Mhz)

Memory

1 x eMMC 16 GB 1 x microSD card reader

Network

1 Gbit RJ45 Ethernet (supports 10/100/1000 Mbps) Optional WiFi USB adapter

Video

1 x HDMI 2.0 (up to 4K@60Hz with HDR, CEC, EDID) 1 x Composite Video (3.5mm jack)

USB

3 x USB 3.0 host ports (share one root hub)
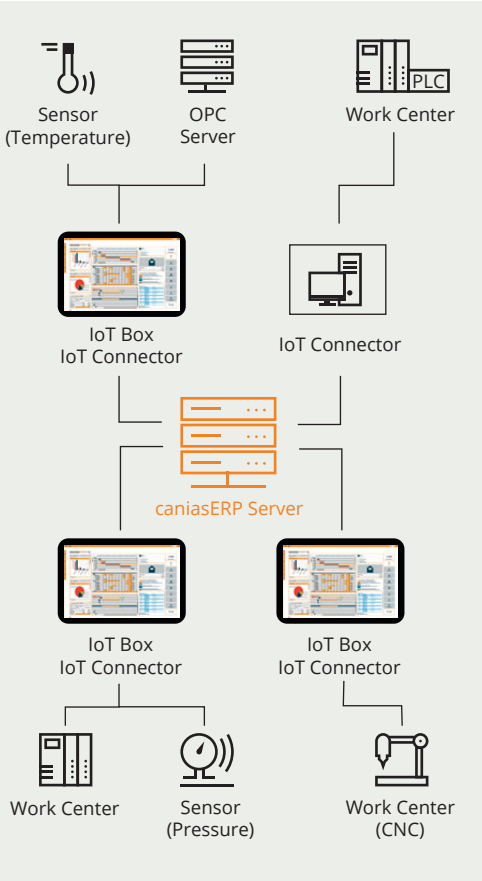
IO connections

4x digital inputs, 4x digital outputs, 2x analog inputs, 2x analog outputs, 2x PWM inputs, 2x PWM outputs inputs, 2x PWM outputs, 1x RS485 / RS232 connector, 1x I2C connector, 1x One-wire connection (optional)

Other

On board RTC (real time clock) Incl. large passive heat sink Active cooling fan (optional) VESA mounting is supported (100x100mm and 75x75mm)

Screen

15.6" 1920x1080 pixel capacitive touchscreen display

IoT Connector

The IoT Connector also enables the development of user-interactive IoT applications. Thus, when developing applications with our TROIA development environment, IoT-enabled solutions with user-interactive visual interfaces, such as operator applications, can be easily created without advanced technical knowledge or third-party tools and systems.
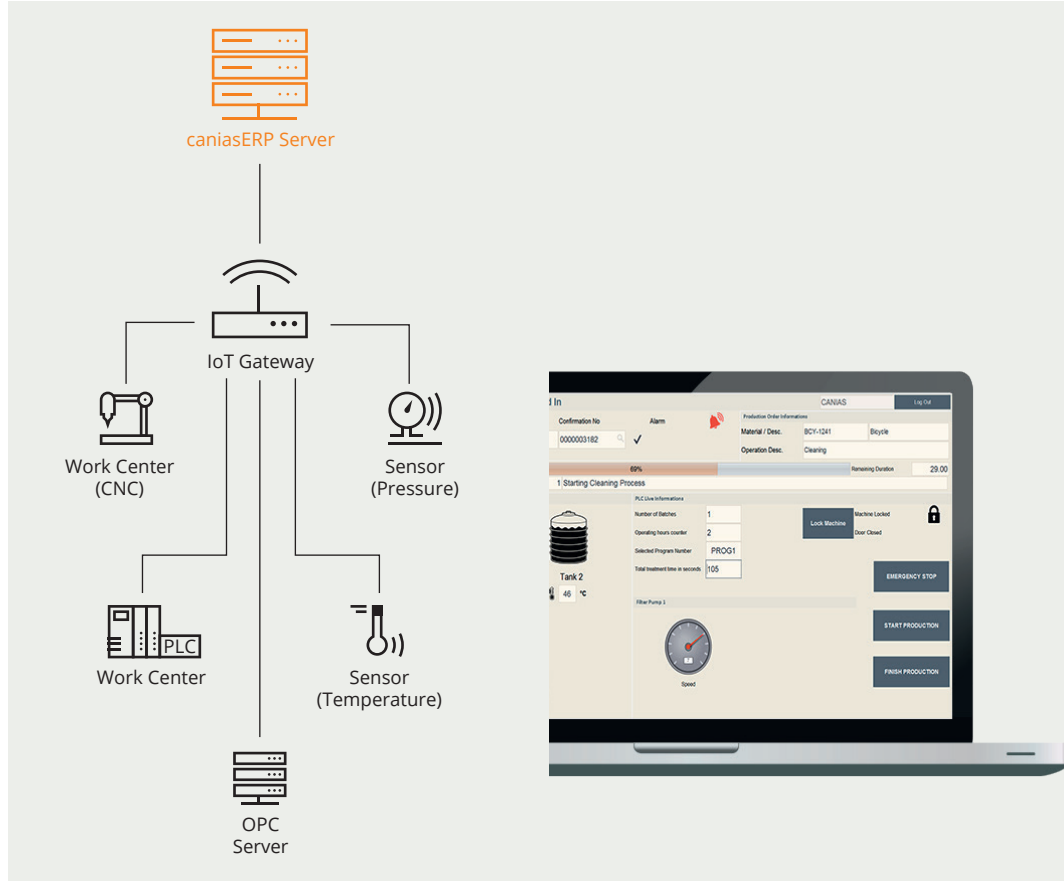
IoT Gateway

IoT Gateway is a protocol-independent communication technology that enables a bidirectional connection between ERP servers and control units, sensors, and smart devices so that data such as resource consumption or environmental values can be monitored, analyzed, and visualized in real time. The data is automatically transferred to the ERP.
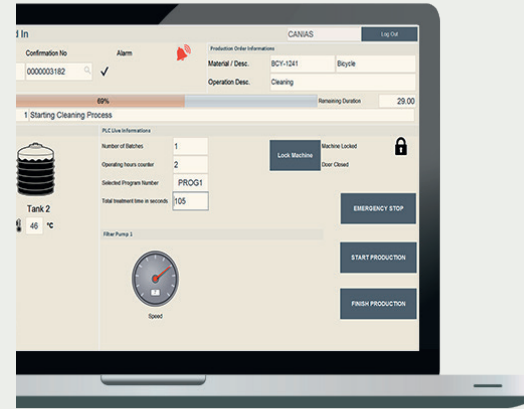
canias4.0 Automation

With the Automation Module (AUT), a complete integration of IoT with ERP is possible. It is not only possible to receive information from the various machines, but also to send information or control the machines if desired. The module is included in the standard scope of canias4.0, customizing is simple and fast.
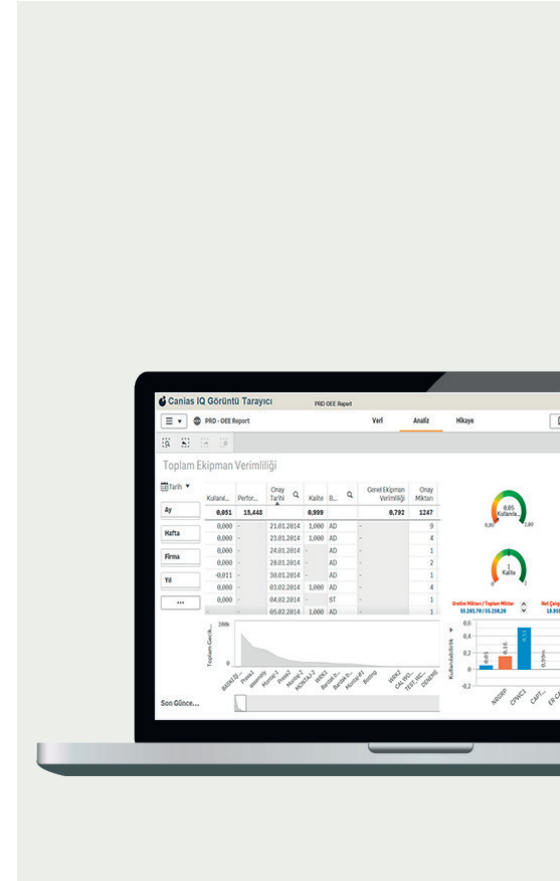
canias4.0 production intelligence

With the PRI module, the collected data can be monitored in real time for various analysis and reporting with production management, automation modules and IoT tools.

- Measurement of Overall Equipment Effectiveness (OEE)
- Monitoring of live production
- Detailed reporting

As a technology provider we supply everything from a single source

iasDB

Big Data

✓ Big Data can be used to link IoT and ERP in a meaningful way

✓ All data can be measured and analyzed optimally

✓ Processes can be simplified through automation

Intelligent enterprises
In nearly all manufacturing industries, IOT is a real advantage. Redesign processes to unlock the true potential of your industry potential of your industry while promoting sustainable development. promote. Homes, buildings, offices, retail. Connect people, machines and information using Big Data to drive business efficiency in a secure environment.

The use of IoT solutions generates large amounts of data. For the data of IOT, an infrastructure is necessary with which large amounts of data can be easily managed and analyzed in real time. For this purpose, we offer our iasDB.

iasDB is an advanced database management system optimized for processing Big Data, ERP-n and IOT processes. This gives companies the resources and expertise to securely deploy large-scale and highly available enterprise information systems.

Highly efficient and fully compatible with all canias4.0 products. The database management system that is fully adapted to future developments of canias4.0 in the areas of Artificial Intelligence, Big Data, IOT and has an architecture that supports the development of the canias4.0 technology in line with the latest developments.

Unlimited freedom

Cloud

New agility

Industrial Application Objects (IAO)

✓ Stay agile and adapt at all times in the face of rapid change

✓ Mobility and networking - independent of locations

✓ Public or private cloude we find the right package

✓ More flexibility through environment-independent objects

✓ Integratability of existing resources with new elements

✓ Optimal compatibility of IoT and ERP - system-independent

The advantages of the cloud are an important factor in the use of IOT solutions. The mostly growing number of IOT devices generate large amounts of data and require corresponding storage space. The use of a cloud in a copyleft manner makes your work easier, because you do not have to invest because you do not have to invest time in infrastructure and administration.

We offer our solution as a cloud version, but it can also be run on-site or in a private cloud. We will help you determine the most suitable option to achieve the highest possible user satisfaction.

With IAO, all modules of the ERP system as well as IoT become independent, i.e. environment-independent objects in the sense of "Modules as Service". The objects are thus individually functional, but at the same time have the ability to fully integrate into the ERP and work independently of the environment. They can thus be operated in on-premise, cloud, private, public, or hybrid environments. canias4.0 can thus be distributed across different systems. For example, the PRD module could run on its own server, detached from the rest of the system.

This structure also offers a high benefit for the area of Industry 4.0 and especially IoT, so that the necessary components can be flexibly assembled and at the same time work together without any problems.

Infinite possibilities. One goal.

ERP

✓ Adaptable to the specific needs of the company

✓ Open, fully integrated and flexible

✓ Maintaining competitiveness through technological advances

With caniasERP, all business processes can be controlled and managed, workflows optimized and productivity and efficiency improved. Thanks to the wide range of modules, processes in planning, procurement, materials management, production, sales, CRM, finance, project and document management as well as corporate development or business intelligence can be mapped individually and fully integrated. This enables an overview and coordination of all factors such as materials, plants, machines and people.

Thanks to its flexible and adaptable structure, caniasERP can be adapted to specific industries and companies and is a completely customizable solution option for all production, organizational and management processes.
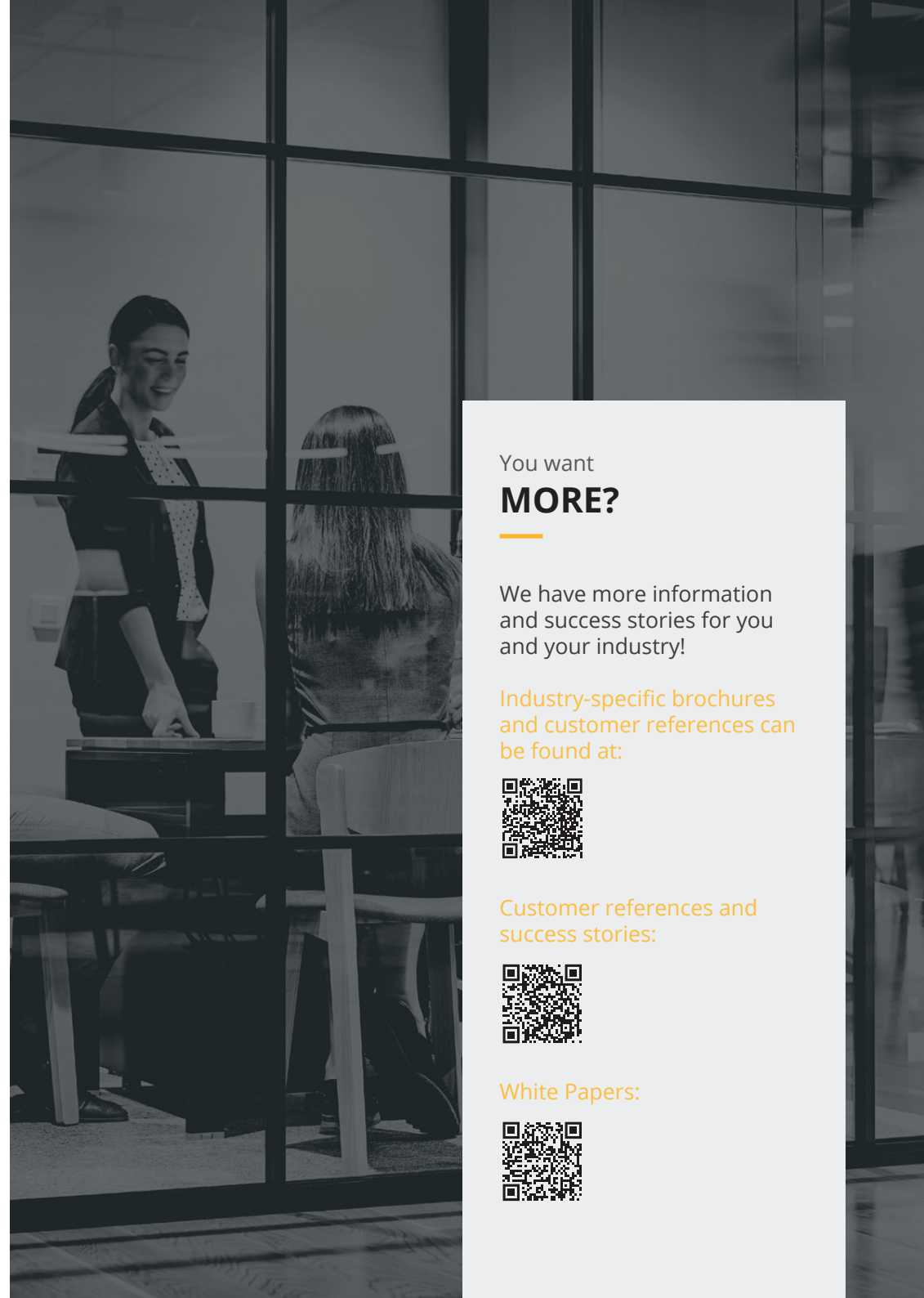
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Industrial
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