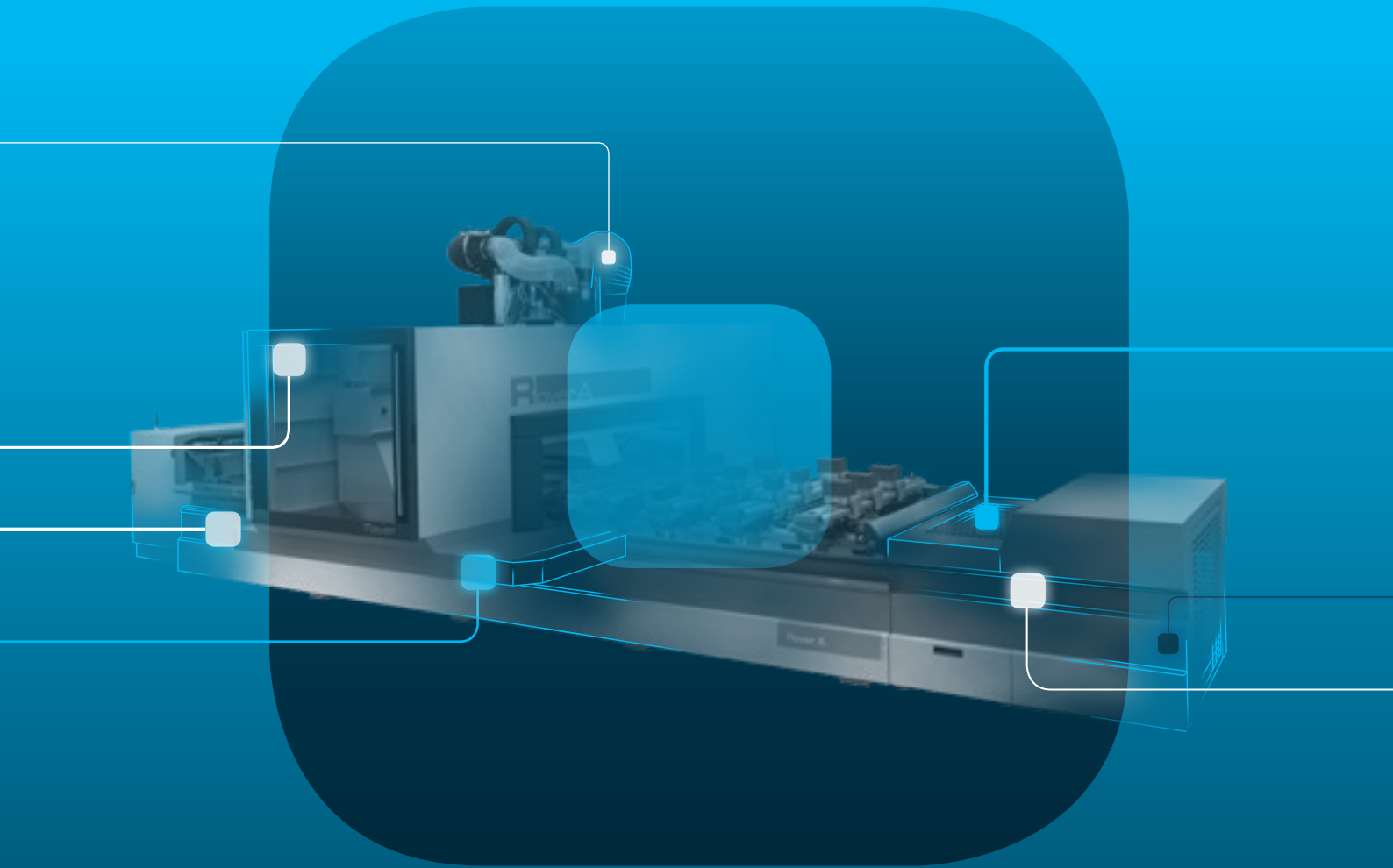


SOPHIA

GREATER VALUE FROM MACHINES



BIESSE'S CYBER-PHYSICAL ASSISTANCE SYSTEM



GREATER VALUE FROM MACHINES

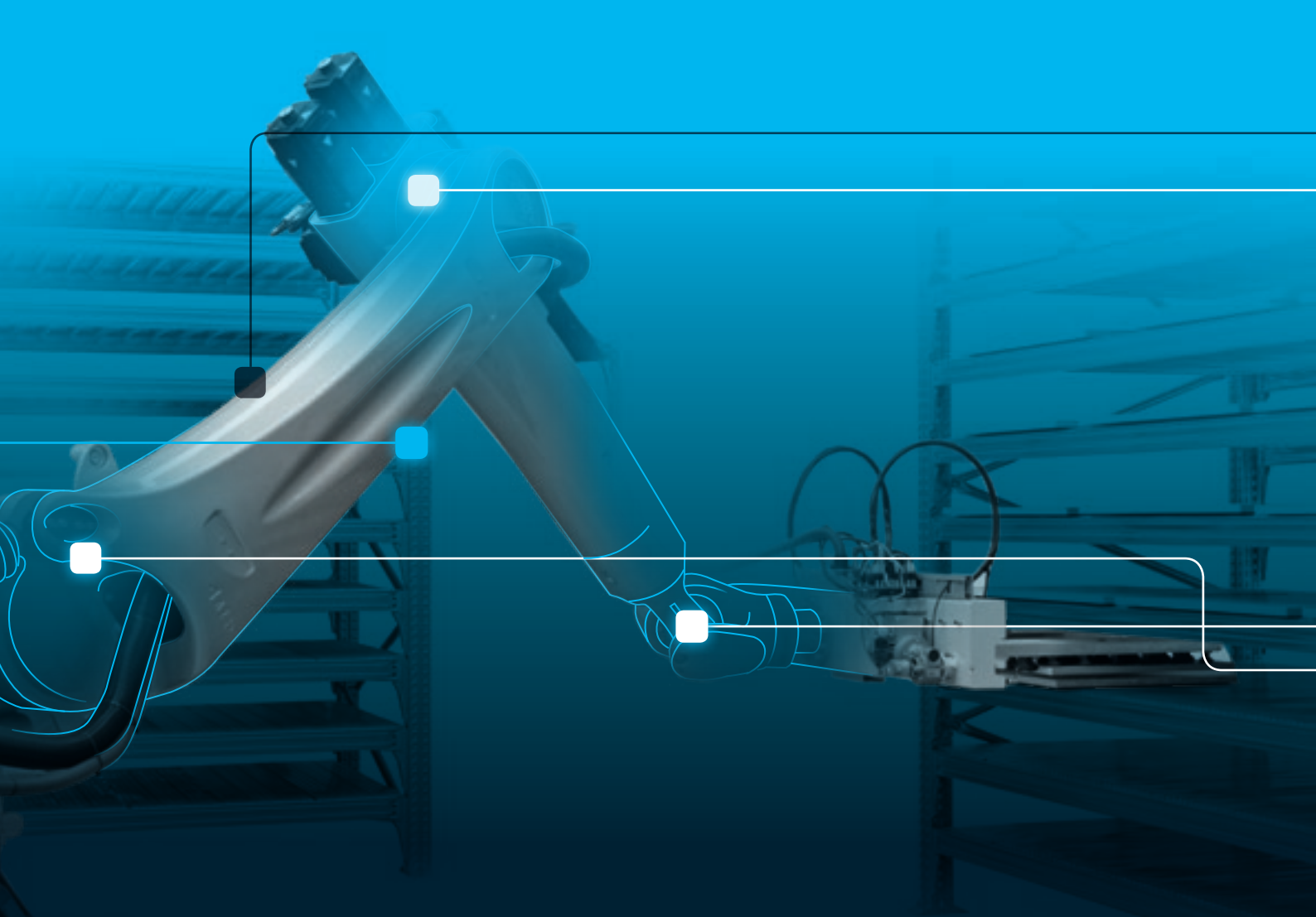


THE MARKET REQUESTS

Solutions that allow manufacturing companies of the fourth industrial revolution to evolve technologically, combining human skill and experience with total production automation and interconnectivity.

BIESSE RESPONDS

with advanced technologies and services that can digitalise and automate factories and production processes, optimising all their main assets - whether technological, strategic, organisational or human. **SOPHIA** is the IoT platform created by Biesse in collaboration with Accenture which enables its customers to access a wide range of services to streamline and rationalise their work management processes.



The momentous change that has characterised the market in recent years is radical, and is constantly evolving. This context can provide enormous benefit to companies, with the current market scenario enabling both large factories and small artisan businesses to find extensive margins for growth, with excellent opportunities for strengthening their businesses. To do so, however, they must be able to make a leap towards even greater quality, and must know how to take full advantage of the incentives that emerge as the fourth industrial revolution takes shape. This means ensuring that new digital technologies and new managerial approaches are harmoniously integrated with more traditional solutions and methods of doing business, maintaining the specific characteristics of the individual manufacturing entities whilst meeting the new levels of productivity and flexibility required by the market.

BY THE SIDE OF CUSTOMERS



□ SERVICES

Biesse supports its customers, offering technological connectivity, sharing of expertise, professional consulting services, training and ongoing assistance.

□ PRO-ACTIVENESS

SOPHIA helps to prevent problems that could damage customer production. Biesse takes proactive steps to contact customers, reducing machine stoppages and inefficient wasted time.

□ ANALYSIS

The information gathered and analysed is transformed into useful indications for optimising customer production and product quality, providing extremely valuable opportunities for growth.

■ **10% CUT IN COSTS**

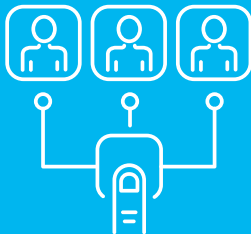
■ **50% REDUCTION
IN MACHINE DOWNTIME**

■ **10% INCREASE
IN PRODUCTIVITY**

■ **80% REDUCTION
IN PROBLEM
DIAGNOSTICS TIME**

A NEW STATE OF KNOWLEDGE

PERSONALISED INTERACTION



The platform allows alerts and indicators to be sent to the customer in real time, in relation to production, the machines used and the type of process carried out. These are detailed instructions for more efficient use of the machine.



OPTIMUM SECURITY

The data flow is from the machine to the network only. The security of the information collected is guaranteed by two different systems:

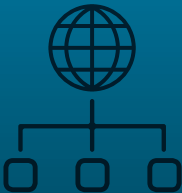
- https communication protocol - i.e. a protocol for secure communication within a network, via an encrypted connection
- access to the cloud with dual token - password authentication.



QUICK ASSISTANCE

Biesse service can monitor the machine's performance, generating reports in real time about what needs to be done to address any issues.

GLOBAL COVER



The entire Biesse worldwide service network is interconnected and can access the SOPHIA web portal, which means quick, incisive reactions and resolutions for customers all over the world.

QUICK PROGRAM INSTALLATION



Software distribution is very simple and user-friendly. It takes place via a dedicated function called Software Manager, that sends the specific software package directly to the machines in protected mode.

THE DIGITAL FACTORY



The platform allows information and data to be sent in real time in relation to the technologies in use, optimising the performance and productivity of machines and systems.

The data collected enables the production process and machine functions to be analysed in detail, detecting malfunctions, assisting customers in maintenance operations, ordering replacement parts in less time and ultimately preventing faults.



SOPHIA is made up of two integrated areas: IoT and Parts. They're linked with two apps so that the customer can easily access the functions offered by the platform.



THE EVOLUTION OF PRODUCTION



IoT - SOPHIA provides a comprehensive overview of the specific machine performance features, with remote diagnostics, machine stoppage analysis and fault prevention.

The service includes a continuous connection with the control centre and the option of calling for assistance from within the customer app (such calls are managed as priorities). Through SOPHIA, the customer receives priority technical assistance.

iOT
SOPHIA



SOPHIA TAKES THE INTERACTION BETWEEN CUSTOMER AND SERVICE TO A HIGHER LEVEL

INFORMATION ALWAYS AVAILABLE

A range of functional data, statistics, KPIs and status updates regarding requests for intervention and machine downtime resolution processes can be received from mobile applications or the web platform. The information is always available to the user at any time, even when the machine is switched off. A web interface enables data to be downloaded and processed externally, with an Industry 4.0 outlook.

AUTONOMOUS MAINTENANCE

Clients receive advice directly from the platform regarding maintenance to be performed autonomously on the machine and can monitor its progress in real time. A notification informs the client when maintenance is required; each intervention is automatically recorded on a calendar that can be customised by the client with maintenance and non-maintenance events, providing a comprehensive overview of all the activities to be carried out within the plant in question.

DATA QUALITY

Clients can view indicators relating to machine productivity and specific parameters for the type of machining operation, in order to maintain a consistent standard of performance and perfect the machining cycles. A series of advanced indicators provide details which make it possible to detect and correct inefficiencies, thus optimising production cycles.

TIME OPTIMISATION

The machine's data can be accessed directly by Biesse Service, enabling the team to immediately begin analysing this and communicating with the client, with access to all the useful information from the outset. Time frames for assistance are considerably reduced and machine productivity is maximised.

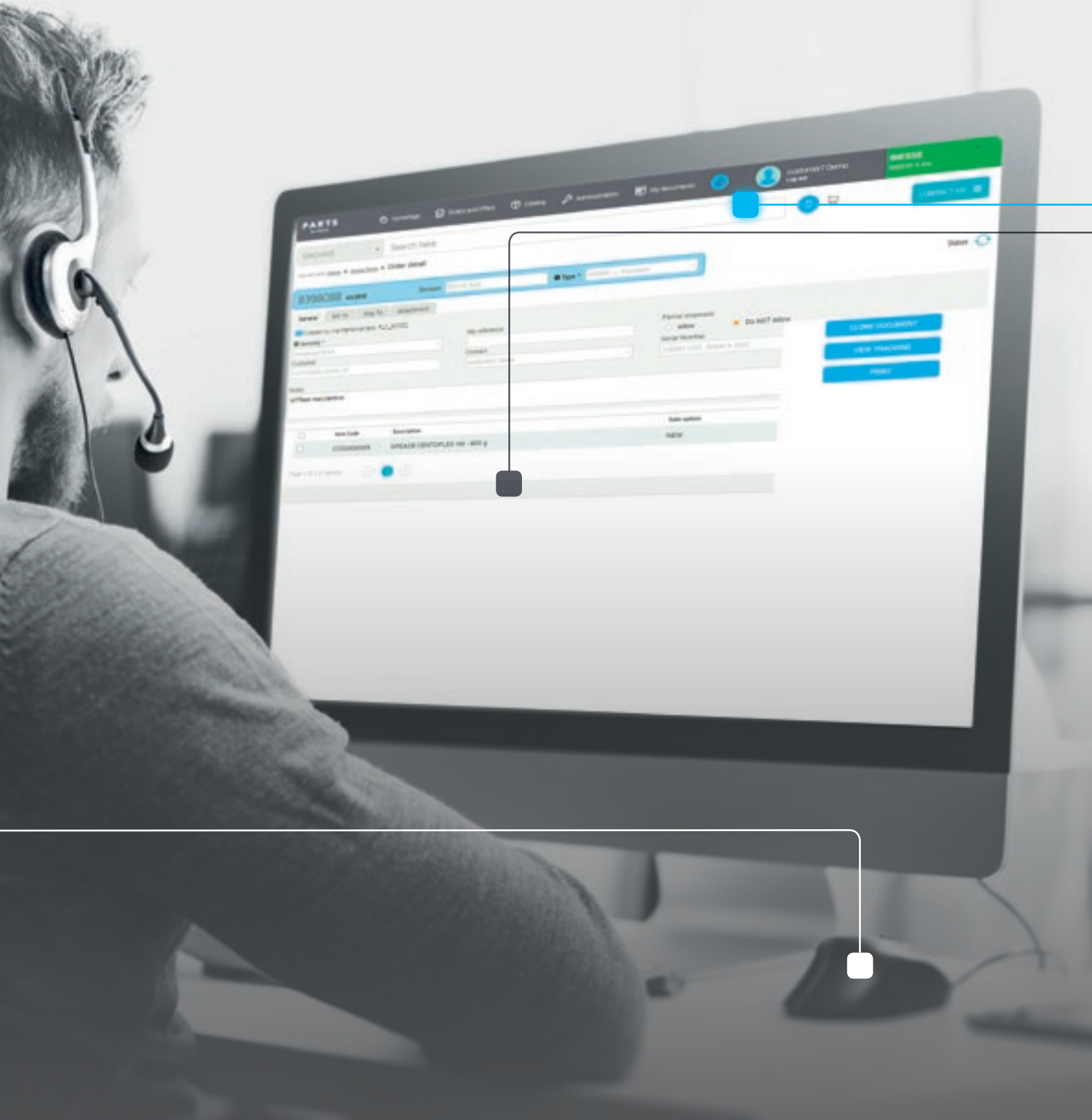
DIRECT COMMUNICATION

The customer can request assistance directly through the app, via the SUPPORT REQUEST function. This interactive video calling function allows images, messages and files to be shared, facilitating communication and simplifying the resolution process.

REAL-TIME MONITORING

The client can use his or her own device to view a number of the machine parameters in real time via the internet or through the app, such as the status of the machine and the programmes under way at that time, enabling the activities in the workshop to be constantly monitored.

DAILY EFFICIENCY



PARTS

SOPHIA



PARTS - SOPHIA IS THE EASY, INTUITIVE AND PERSONALISED NEW TOOL FOR ORDERING BIESSE SPARE PARTS.

Functions: the portal offers customers, dealers and subsidiaries the chance to navigate inside the (constantly updated) documentation of their relative machines and make interactive searches in the machine drawings, documentation and bill of materials.

It also allows a spare parts purchase basket to be directly created, with an indication of real time warehouse availability and the relative price list. The progress of the order can be monitored, and a list of recommended and emergency spare parts is made available.

PARTS - SOPHIA, available 24/7, is a multi-language and multi-platform tool that can be also used via a dedicated app on a smartphone or tablet integrated with the leading operating systems (iOS and Android).

The new functions include:

- the automatic creation of a spare parts basket following an IoT maintenance task;
- the opening of a technical intervention request via the portal or PARTS - SOPHIA app;
- direct access to the machine's technical documents from the IoT app to the PARTS app.

CONTINUOUS GROWTH

SOPHIA OFFERS NEW OPPORTUNITIES, EVEN FOR MACHINES THAT ARE NOT CONNECTED.

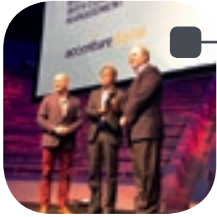
SOPHIA customers who own a machine that cannot be connected can now benefit from the core advantages of SOPHIA for these machines too, managing tickets digitally and with a dedicated assistance service, available through the same app.

The SOPHIA ACTIVE contract, which can be activated on machines that cannot be connected, includes the following core functionalities:

- **Opening and tracking of tickets**
- **Remote video assistance**
- **SOPHIA Calendar**
- **SOPHIA Assistance Hotline.**



WINNING TECHNOLOGY



Biesse Group, in partnership con Accenture, won the Best Business Transformation Award at the IoT World Congress in Barcelona (3-5 October 2017).



SOPHIA received the Award for Innovation during the Eurobois 2018 trade fair - an important accolade for the IIOT project.



Biesse Group won the Digital Technology Award for Italy at the European Business Awards 2018, the leading company competition sponsored by RSM which selects the most innovative companies to promote success, research and ethics in the European entrepreneurial community.



SOPHIA won the 2018 Gold Star Award on occasion of the Australian industry trade show AWISA. This award recognises the best innovations in products, services, and manufacturing techniques.



In Las Vegas, on occasion of TISE 2019 - The International Surface Event, one of the most important events in the North American market for professionals in the stone-working industry, SOPHIA won the “Best Product Award” for the SOPHIA IOT platform, a recognition presented this time to the Intermac brand.



Biesse Deutschland was awarded for SOPHIA in the “Excellence in Business to Business - Connectivity” category of the German Innovation Awards 2020, an international competition that recognises excellence in innovation for products and solutions that provide added value to users in various sectors.

MADE WITH BIESSE

SOPHIA: SAFETY AND CONTINUOUS ASSISTANCE

Introduced in May 2016 on occasion of the Ligna trade show, SOPHIA has grown and surprised Biesse's clients with its performance. The platform, created in collaboration with the Accenture consulting firm, gives clients access to a wide range of services that simplify and rationalise the management of their work. SOPHIA is based on the ability to send real-time information and data on the technologies in use, optimising the performance and productivity of machines and systems.

Many clients have expressed their satisfaction and the benefits that they enjoy with the new Biesse platform, which provides continuous and reassuring assistance. Today we describe the experience of the Piraino joinery.

The Piraino joinery was established 53 years ago. It was the product of an enormous passion for wood, initially cultivated by the founder of the company, Angelo Piraino, and subsequently by

his son, Stefano Piraino, now the owner, each year investing in increasingly cutting edge equipment in order to perfect the machining operation processes.

The company offers a wide range of products which includes doors for both interiors and exteriors, shutters, windows, and custom made furniture, satisfying its clients with extremely high quality products and a constant and efficient servicing of them. Within the company it is possible to complete most kinds of machining operations, thanks to the help of cutting edge technology, however manual labour also plays an enormous role, from the preparation of the product all the way to long term customer assistance.

"We receive excellent feedback from our clients who, after 20/30 years, still have our products in their homes and in the best of condition. This is something we are very proud of. Throughout our joinery's history, we have always

worked with private individuals and construction firms. Most of the beautiful historic centre of Palermo boasts our work and our products. I feel honoured by this every time I stroll through the streets of Palermo and it lets me be fully satisfied in our performance," says Angelo Piraino, son of the joinery's current owner.

"Our company is cutting edge from every point of view. Our primary machines are the molding machine, the calibrator, and our most recent two purchases: the Biesse Rover A Smart work centre and the Biesse Akron 1300 edgebanding machine. These machines make it possible for us to create windows in wood and in wood/aluminium, furniture according to architects' designs, and both traditional and modern furniture. With the Rover A Smart we can create any product. It is our crown jewel and the heart of the joinery. Before they're delivered, all of the prod-

ucts are processed by this machine in order to ensure that the finished product perfectly reflects the needs of our client. With the Akron edgebanding machine we can edgeband our pieces with an extremely high level of quality, which gives the final product the style that we want," continues Angelo.

"Biesse provides many advantages with the use of its technology. It facilitates the creation of any kind of product and with the bSolid software, present in the Biesse work centres, working has become pure joy. With the Akron edgebanding machine and the insertion of the controlled axles, we can change the

thickness of the panel and edge in just a few minutes. The product that has, unexpectedly, most surprised us is SOPHIA, connected to the Rover A Smart. Sophia is an additional certainty that Biesse offers. It allows us to feel safe, protected, and assisted 24 hours a day. It makes it possible to work worry-free as, if any problem arises, it assists you and helps you to resolve it. I was contacted by Biesse about a problem in the work centre, a problem that I was unaware of, and in just a few minutes it was fixed.

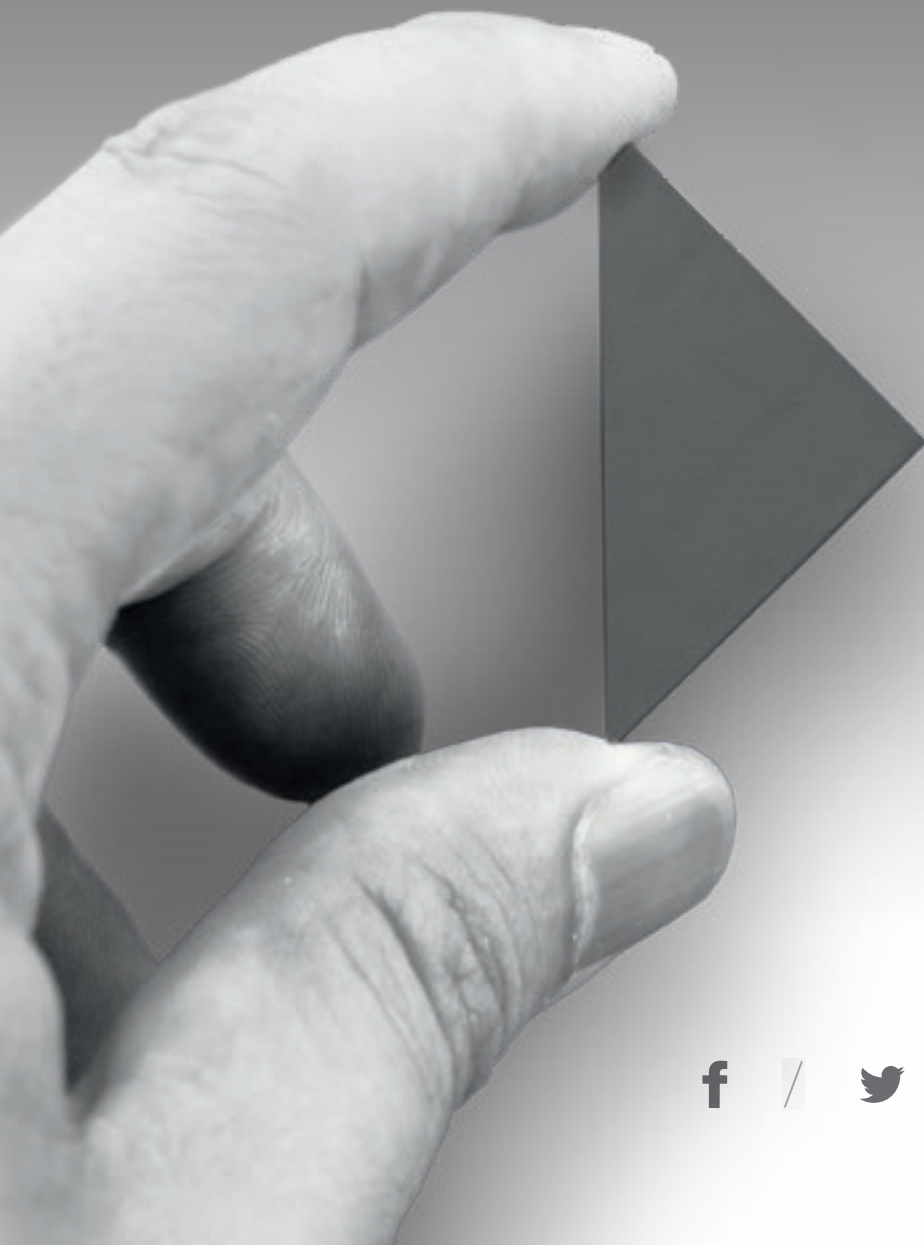
Biesse technology is useful and functional. As of today, there have been al-

most no issues. Biesse facilitates the automation of its own company, and helps other companies to be cutting edge from every point of view. We must also thank the area representative, Mr. Cerniglia Francesco of CE.MA. SRL, who, during the purchasing phase, with great skill and professionalism gave us the best advice possible based on our needs," concludes Angelo Piraino.

A true story, as told by Biesse clients, that confirms the support which SOPHIA provides to daily operations.



LIVE THE EXPERIENC



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Interconnected technologies and advanced services that maximise efficiency and productivity, generating new skills to serve better our customer.

LIVE THE BIESSE GROUP EXPERIENCE AT OUR CAMPUSES ACROSS THE WORLD

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