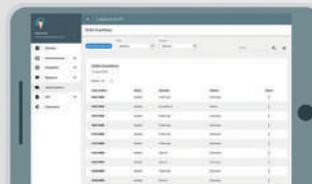
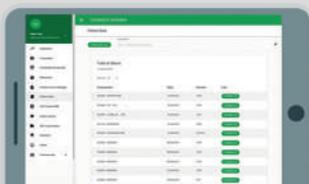
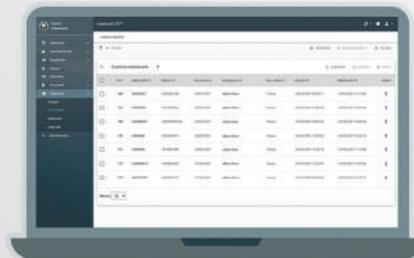
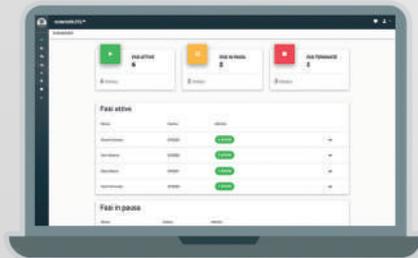
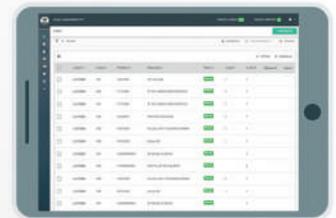
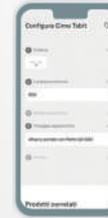


materialSUITE™

BECOME A SMART FACTORY



materialSUITE™ for factories 4.0



Industrial manufacturing process automation software suite

Starting from the customer's needs to develop a totally tailored solution. Together, from initial analysis to final testing, all the way through the development phase. The goal is to create a software that meets the real needs of the customer based on their production system.

This is how our method is defined: the right software is a unique software.

materialSUITE™ is the **MOM** suite for analysis, control and communication within the factory.



The right software is a unique software.



Customised software, with easy to understand dashboards and interfaces.

User experience is main focus. The graphic prototyping allows analysis of each touchpoint while the User Experience Strategy tests guarantee maximum usability and practicality for the user. Simple, intuitive and configurable: we develop production management software that everyone can use and understand.

- Custom Development
- User side customisation
- Usability and execution



MES

execution, progress and
traceability

pag. 4



WMS

warehouse management

pag. 6



SCH

scheduling

pag. 8



MTM

methods time measurement

pag. 10



TAILORED

pag. 14



MES

progress and traceability



Plan production, monitor progress, collect real time data and make your factory processes more efficient.

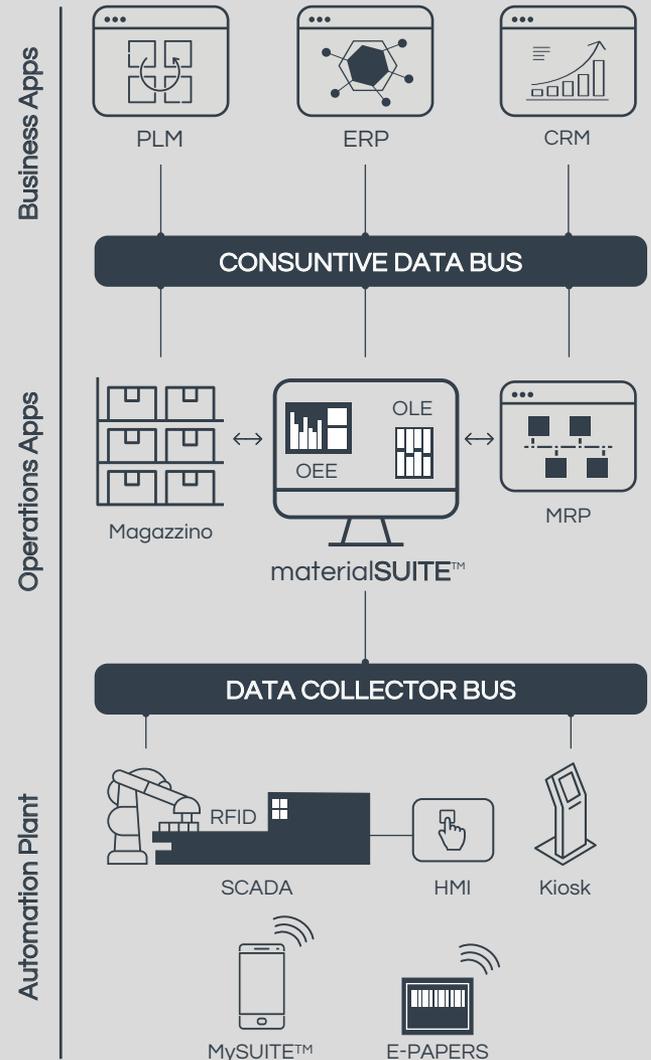
Data sending and Data collection with all ERPs

The real time data exchange between the business level and the operational level makes a general increase of overall efficiency of the shop floor.

Optimising your production process means combining the logic of lean production, able to connect and create fast communication between business systems, and the plants of your factory.

This is why it is important for the ERP systems and MES systems to be interconnected.

- Better control of the entire production chain
- Improved production planning capability
- More reactive response to unexpected events
- Maintenance cost reduction



Fast and accurate production payout

Manage the progress and various production processes within your company both efficiently and on time.

- Percentage update on order completion
- "Bottleneck" reduction
- Automatic management of batch changes
- Check the differences between estimated times and actual times taken

Production payment							Search _____
BDL	Order	Operator	Phase	Elapsed times	Quantity processed	Prog	
25561	2019 C 0424	16	Prelievo lamiera	00:20:30	1 / 2	●	
25560	2019 C 0424	24	Prelievo lamiera	01:40:10	1 / 3	●	
26451	2019 C 0424	12	Smussatura	00:43:12	2 / 6	●	
26472	2019 C 0424	14	Molatura	01:40:08	1 / 2	●	
26473	2019 C 0424	20	Stamp. estru. assiem.	00:23:14	1 / 4	●	
26478	2019 C 0424	22	Smussatura	00:52:10	1 / 5	●	
27470	2019 C 0424	24	Molatura	01:20:23	1 / 3	●	
27479	2019 C 0424	09	Prelievo lamiera	00:34:04	1 / 3	●	

Progress monitoring

Some of the most frequently asked questions within a production plant usually concern order status and the ability or not to meet the estimated delivery dates. That is why having an MES software for real-time production monitoring becomes essential.

- Better control on launched activities
- Production performance improvement
- Accurate updates on orders / resources load
- Delivery improvement

Due dates								Search _____
Code	Order	Product	Quantity	Registration	Assembling	Welding	Deliv	
1667	2019 0477	Elettroventola	17	05/08/2020	20/08/2020	26/08/2020	31/08/2020	
1677	2019 0475	Pompa acqua	15	28/07/2020	05/08/2020	15/08/2020	25/08/2020	
1669	2019 0473	Albero motore	24	26/07/2020	03/08/2020	10/08/2020	13/08/2020	
1678	2019 0472	Quadro	30	04/07/2020	10/07/2020	20/07/2020	25/07/2020	
1680	2019 0474	Quadro	15	02/07/2020	05/07/2020	15/07/2020	31/07/2020	
1667	2019 0471	Pompa acqua	15	02/07/2020	05/07/2020	16/07/2020	01/08/2020	
1665	2019 0470	Elettroventola	15	29/06/2020	03/07/2020	10/07/2020	15/07/2020	
1673	2019 0469	Quadro	25	28/06/2020	29/06/2020	02/07/2020	10/07/2020	



WMS

warehouse management



Intralogistics at the service of production

The WMS module is the management system for stock movements within one or more production plants equipped with storage warehouse and picking areas. Internal logistics effectiveness is an important asset for companies to remain competitive on the market, where delivery times depend increasingly on operation and handling management.

<input type="checkbox"/>	Cod.	Description	Qtà UMA	Qtà UMA residual	Status	Last updated	
<input type="checkbox"/>	3695	Salmone affumicato preaff. Cadelmar	1090,000	624,00	<div style="width: 57%;"></div>	16/03/2021	⋮
<input type="checkbox"/>	3630	Polipo per carpaccio 3KG	60,000	40,000	<div style="width: 67%;"></div>	16/03/2021	⋮
<input type="checkbox"/>	2280	Tuttomare cartone assortito new	1344,00	1344,000	<div style="width: 100%;"></div>	16/03/2021	⋮
<input type="checkbox"/>	2279	Polpe cotte sottovuoto tagliato	1008,00	336,000	<div style="width: 33%;"></div>	16/03/2021	⋮
<input type="checkbox"/>	2278	Scubettata di salmone affumicato	4,000	1,000	<div style="width: 25%;"></div>	16/03/2021	⋮

- Advanced algorithms for shelf and hold storage
- Automatic operator missions generation
- Stock movements from the beginning/end of the production line and picking
- Both pre-set and configurable ERP integrations

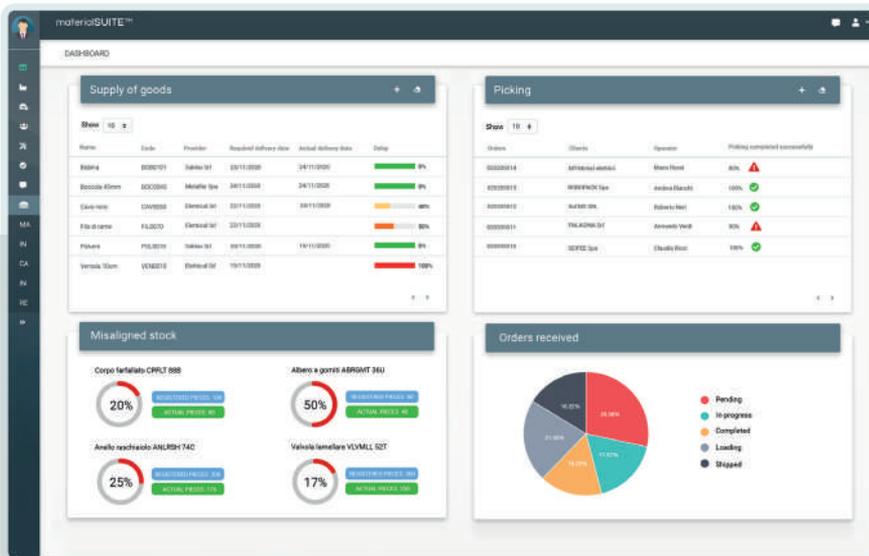
Decision support dashboard and KPI

Proper planning of production activities and material resources permit a rationalisation of production times and capacities: therefore it's essential to know the product rotation index to plan material purchase times and methods. This way it's possible to have the necessary quantities of materials in the warehouse, avoiding waste and re-ordering only once the stock limits set are reached.

- Fast identification of stock differences
- Picking accuracy index

Intuitive solutions for complex warehouses

To support supply chain managers and warehouse operators in the management of daily activities, we have developed our software interface through visual management solutions utilising user experience studies, making our solutions user friendly and intuitive.



- Supplier punctuality measurement
- On-hand Inventory and average stay length for each reference



SCH scheduling

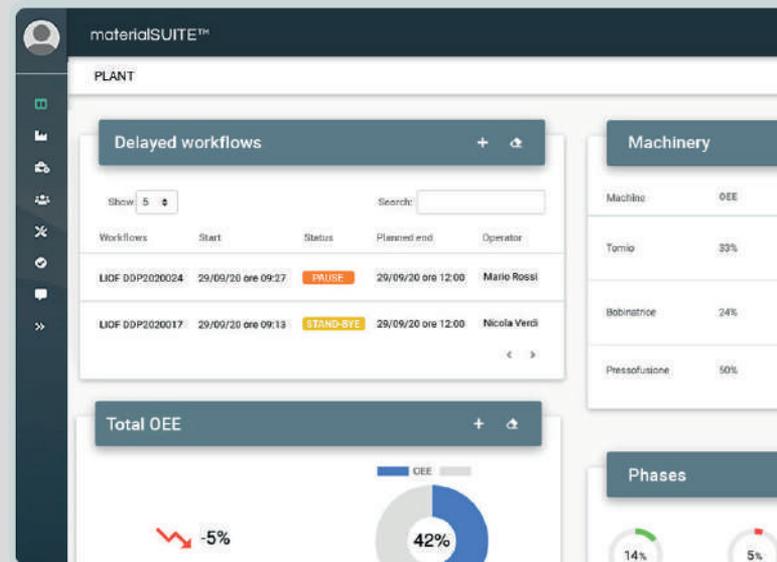
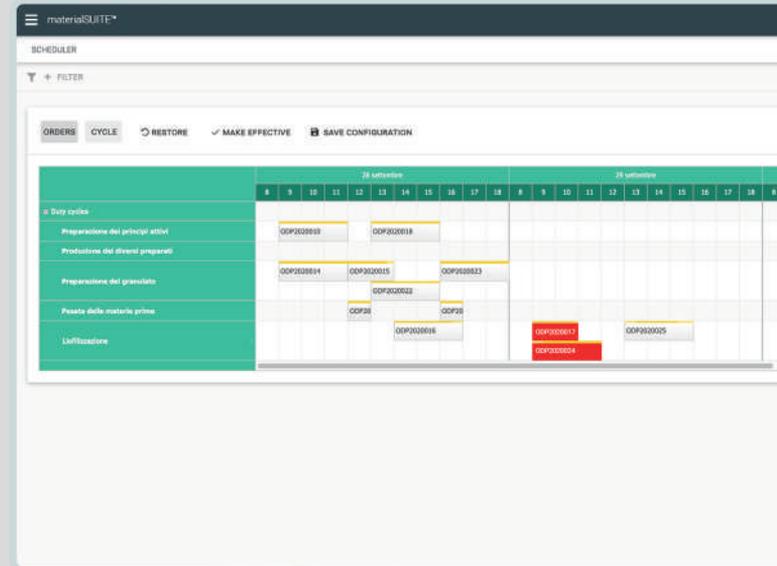


We integrate APS and ERP systems.
Plan and schedule work plans: you will meet delivery times and improve customer service.

Optimise production thanks to the scheduler

Scheduling production means programming operations through synchronisation with WMS and MES. This allows you to take advantage of algorithms that, based on the attainment of raw materials, determine the correct sequence of orders so as to minimise the costs related to the production plan.

- Formulation of the operational plan and push production plan
- Preventive identification of production times and criticalities
- Production sequence simulation
- Real time view of what is happening on the shop floor



Short-time scheduling and programming

The materialSUITE™ scheduler, thanks to its heuristic algorithms, allows to determine the time order of production jobs which can vary from a day to a few weeks, depending on the reference industry sector.

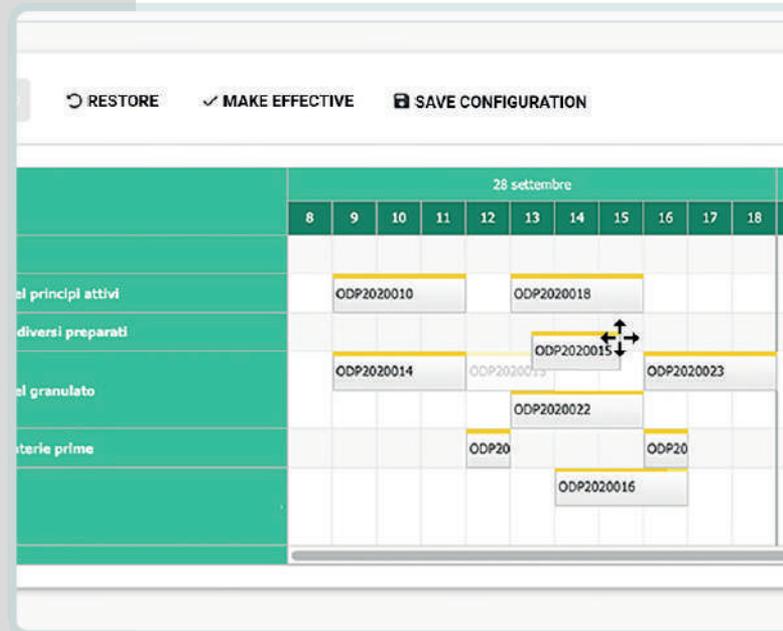
- Required planner effort reduction
- Increased production efficiency
- Timely and updated information
- Precise estimate of delivery dates

What are the benefits provided by the scheduler?

Ensures decision makers save time by minimising idle resource time.

Furthermore it allows you to manage priorities thanks to the drag and drop function, allowing the user to move the phases: once the Start has been set, the scheduler will automatically recalculate the remaining phases in a waterfall fashion until processing completion.

- Progressive improvement of production peaks
- Accuracy in the lead time estimate throughout the commercial phase
- Production time reduction
- Effective distribution of internal load and subcontracting
- Machine times and manual work phase optimisation





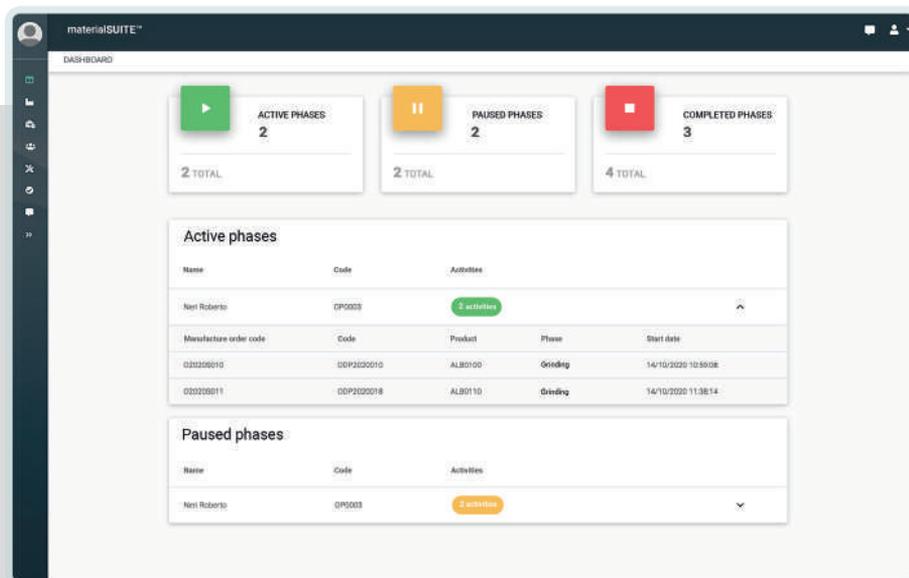
MTM

methods time measurement



Human time recording

Knowing the times and production methods of their operators is essential for companies with manual production phases. In fact, thanks to the OLE measurement metrics we are able to detect production Times and promptly intervene where problems present themselves.



- Rationalisation of production methods and processing time assignments
- Precise definition of production costs through work and time keeping measurements
- Better logistics management
- Enhanced time control and potential production interruption identification

Real-time manual phase monitoring

The mySUITE™ android application installed on company devices and easily usable thanks to a personal login, allows the operator to carry out their approved production phases.

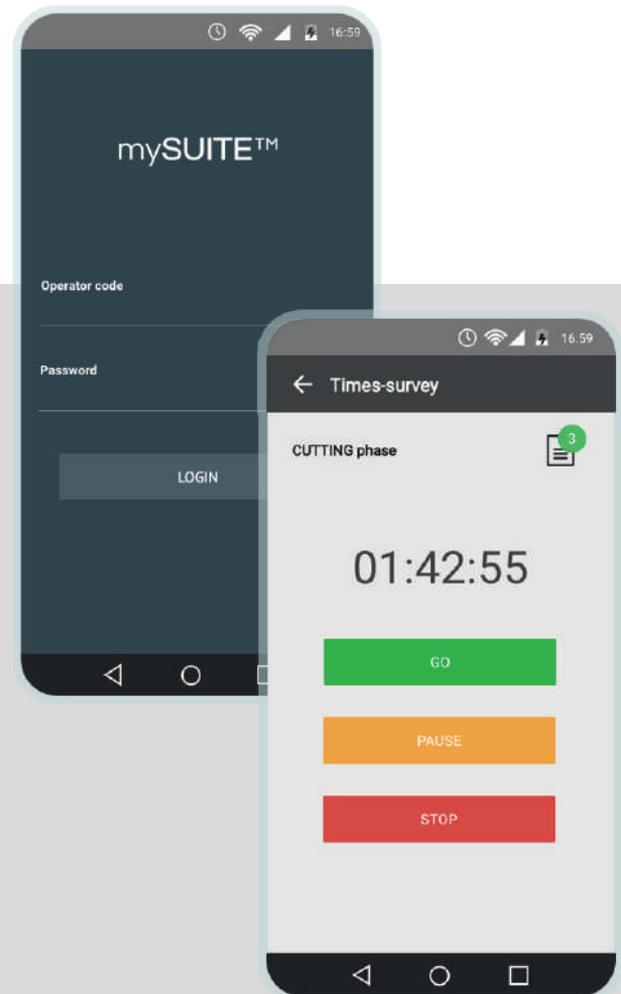
- Faster exchange of information between employees and improved communication
- Cost and waste reduction to streamline production
- Identification and management of real manual processing times
- Data collection on your production efficiency

The advantages of measuring on the go

mySUITE™ is an indispensable tool for diagnosing and preventing any critical points in the manual production phases.

It's also possible to monitor additional KPIs such as workforce availability, performance and work quality, making the company competitive and digitalised.

- Better staff management
- Production process optimisation
- Refining the OLE metric
- Prevention of any critical points in the manual work phases





MTM

methods time measurement



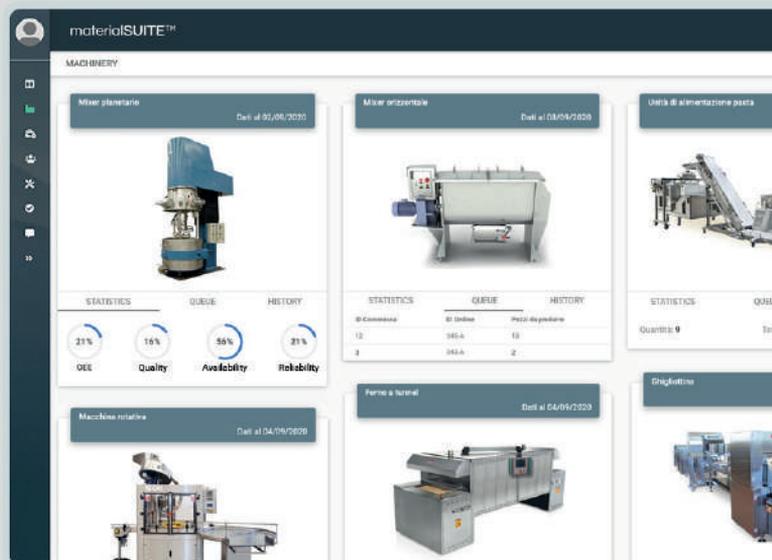
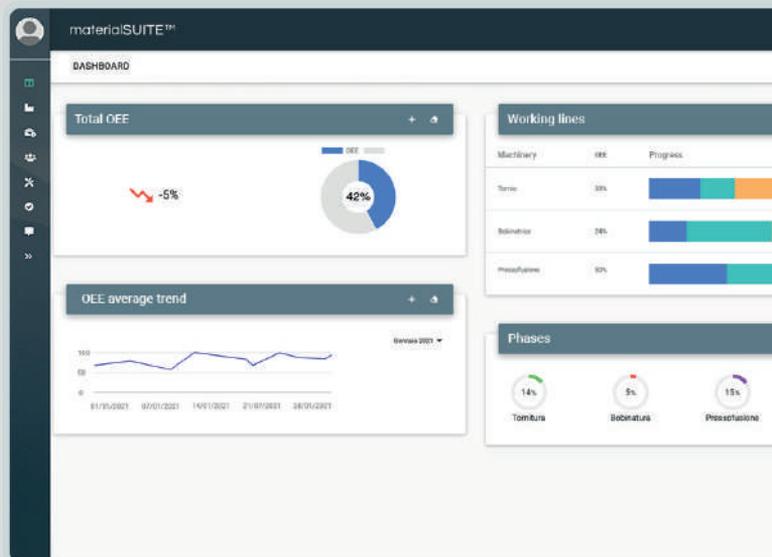
Machine time recording

Instantly measure and control production times to obtain the duration values of the work phases and production cycles.

Production time detection is one of the most important phases in the production plant.

The materialSUITE algorithmic rules have the purpose of calculating the OEE of the plant and the interferences that cause production problems by limiting inactivity related losses.

- Production driver improvement
- Downtime cause identification
- Productivity loss identification
- Real production capacity calculation



Connection between software and machinery to optimise remote control access

Through HMI, PLC or SCADA data collection systems, through standard protocols integrated into the suite such as OPC-UA, the MES module is able to show the operator the KOLs of the pant and of each individual machine: this allows to focus attention on specific phases, providing statistics like availability, quality and reliability thanks to machine status analysis.

- Cost and waste reduction to streamline production
- 4.0 connection and digitalisation of machinery
- Consumption and resource use measurement during the production process
- Machine condition checks in compliance with the process parameters

Advantages for the decision maker and opportunities 4.0

The 4.0 Industry plan makes it possible to transform into a Smart Factory. Interconnected machinery, two-way communication and remote configuration are the main factors of industrial digitalisation.

- Identification and management of actual processing times
- Reduced communication times between production departments

Machine run times

Machine	Time elapsed	Steps performed	Set up time	Down time	Waste time
Bordatrice	148:14:54	45	00:20:30	00:10:30	00:01:56
Fresatrice	152:20:34	334	01:20:10	00:20:08	00:40:07
Sabbiatrice	172:45:36	125	01:13:12	00:13:45	00:34:40
Tornio	156:12:08	80	01:20:08	00:15:09	00:54:04
Forno	145:17:56	12	00:56:14	00:14:10	00:32:10
Robot assemblaggio	135:51:02	234	00:52:10	00:10:13	00:45:53
Forno vernice	124:23:06	165	01:20:23	00:25:26	00:40:20
Levigatrice	152:17:16	16	01:34:04	00:13:07	00:25:10

Mostra 10



TAILORED

Share your specific needs, we will create the right software for you



Product Configurator

The product configurator software allows the generation of the most competitive estimate thanks to the final accounting system, using the considerable amount of data and information present in the materialSUITE™ data set. The figuration function works by collecting large amounts of data, cross checking characteristics and values, thus generating numerous product combinations. On top of that, a product configurator allows you to estimate production times and costs, using the production data collected by other MES, MTM and machine connection modules.

- Generating more interested leads
- Easy RDO management
- Automatic quote generation online
- Time saving and optimisation for quote preparation

The screenshot shows the T€masys™ software interface for quote management. The top navigation bar includes a menu icon, the company name 'T€masys™', and a language selector. The main content area is titled 'Quotes' and displays a quote for item '10119'. A summary table at the top right shows the following data:

TOTAL	MARGIN
€ 4827.99	31.04 %
	€ 1499.00

The configuration details for the quote are as follows:

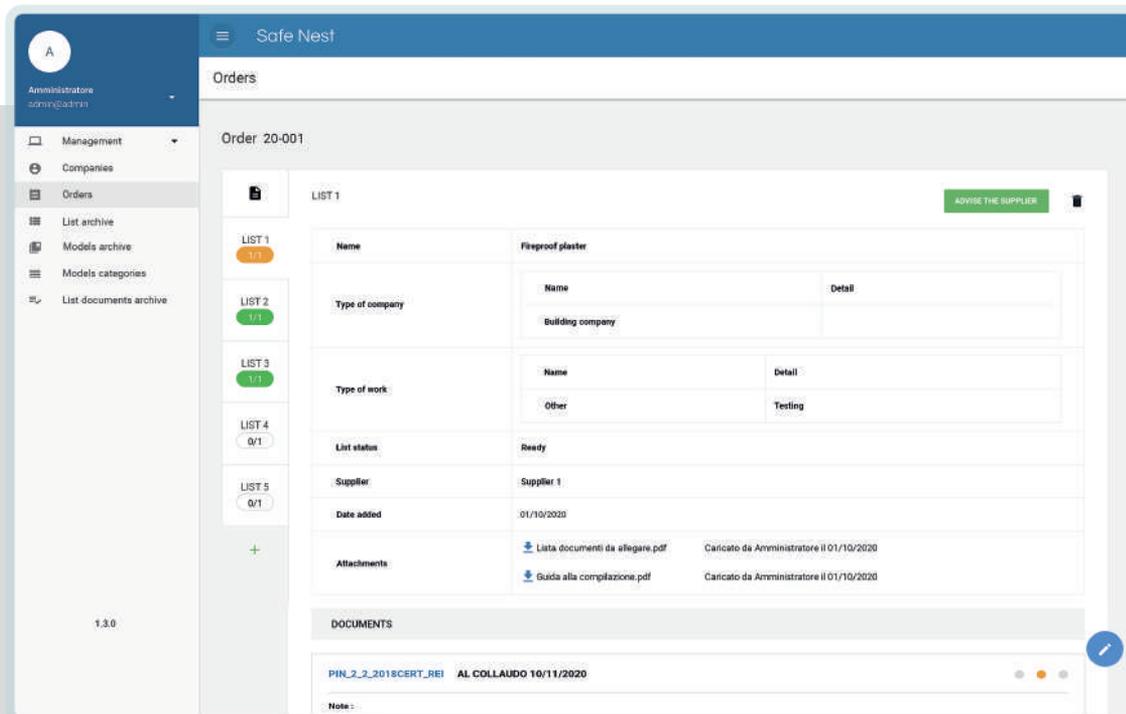
- Item: ITEM 1 (Norma non definita)
- Quantity: 3
- Type of material: A 304 2B
- Type of finish: TD
- Type of supply: Fornitura propria (selected), Conto lavoro
- Technical specifications:
 - sp. minimo: 6 mm
 - H (Colarino Ø1): 20 mm
 - Diametro: Est. (selected), Int.
 - Diametro del forata: 1500 mm
 - Diametro del disco: 1690 mm
 - Tratt. termico: Nessuno
 - Foro centrale: A. nostra discrezione (selected), No, Si
 - H lenza: 2000 X coils
 - Senza saldatura: Senza saldatura
 - N° lastre: No

Document Management System (DMS)

Logikamente's Document Management System (DMS) allows you to archive, organise, manage and share documentation, thus improving the business process by eliminating paper information flows, saving time and reducing errors.

Thanks to the user friendly interface and flexible configuration based on customer needs, the DMS can operate with various file extensions, from text formats, to moving images, all the way to 3D formats.

- Faster information exchange between employees
- Cost and waste reduction to streamline production
- Quick document exploration through advanced searches
- Collect data on production efficiency





Via Giovanni Calvino, 38/a
44122 Ferrara - Italy
T. +39 0532 206288

www.logikamente.it
hello@logikamente.it
P.I. 01942790385