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STRATEGIC EVOL



UTION



TT News

Marangoni Meccanica SpA, the leader in tyre assembly machinery design and production, recently launched its new corporate brand identity. The change comes at a time when the company, which was recently recapitalised and spun off from the Marangoni Group, is evolving through a strategic journey with the objective of offering to its customers an even more powerful support and commitment.

The company has been a leader in the market for long and has a unique brand identity. Marangoni Meccanica SpA says the new branding reflects the company's market-leading position better and demonstrates the comprehensive lifecycle of machinery and services offered to its customers across the globe. The new brand "Marangoni Machinery" and its new logo work well across digital and physical channels. "They evoke a feeling of ideas, dynamism, collaboration, movement, positivity, speed—and velocity, which work all together for obtaining the highest quality and satisfaction for the customers," Riccardo Mastronardi, the new CEO, says.

"Marangoni Machinery has a unique value proposition in the global tyre industry, especially in the big tyre segments like Agriculture and OTR. We are driven by a continuous Customers focus: each new feature is designed to support Customer's growth and performance, oriented to best efficiency and quality," Mastronardi told Tyre Trends (See separate interview inside)



Foreseeing and inventing new solutions

Research is an activity of fundamental importance for Marangoni Meccanica. The company's collaboration with the Department of Industrial Engineering of the University of Trento - Laboratory of Maieutics, allows sharing knowledge and skills that can greatly improve the technical culture of its designers. The project 'Marangoni Station - New Generation' aims at creating software that can be used on a variety of IT media

The company's main activity is the design and manufacturing of machines and technologies related to the production of new tyres, mainly machinery for tyre building of Agricultural and OTR tyres industry.

Within the flow of activities that lead to the creation of a product, research is an area of fundamental importance. The ability to match the customer's needs and, if possible, to foresee them by inventing new solutions is Marangoni Meccanica's core strength.

R & D team at work





▲ Key Accounts -
Simona and Anna

The company designs around the customer's needs, searching for new solutions to address improvements, optimisation and coming industry challenges an eventually find out new needs and anticipate what the market will require in the coming years.

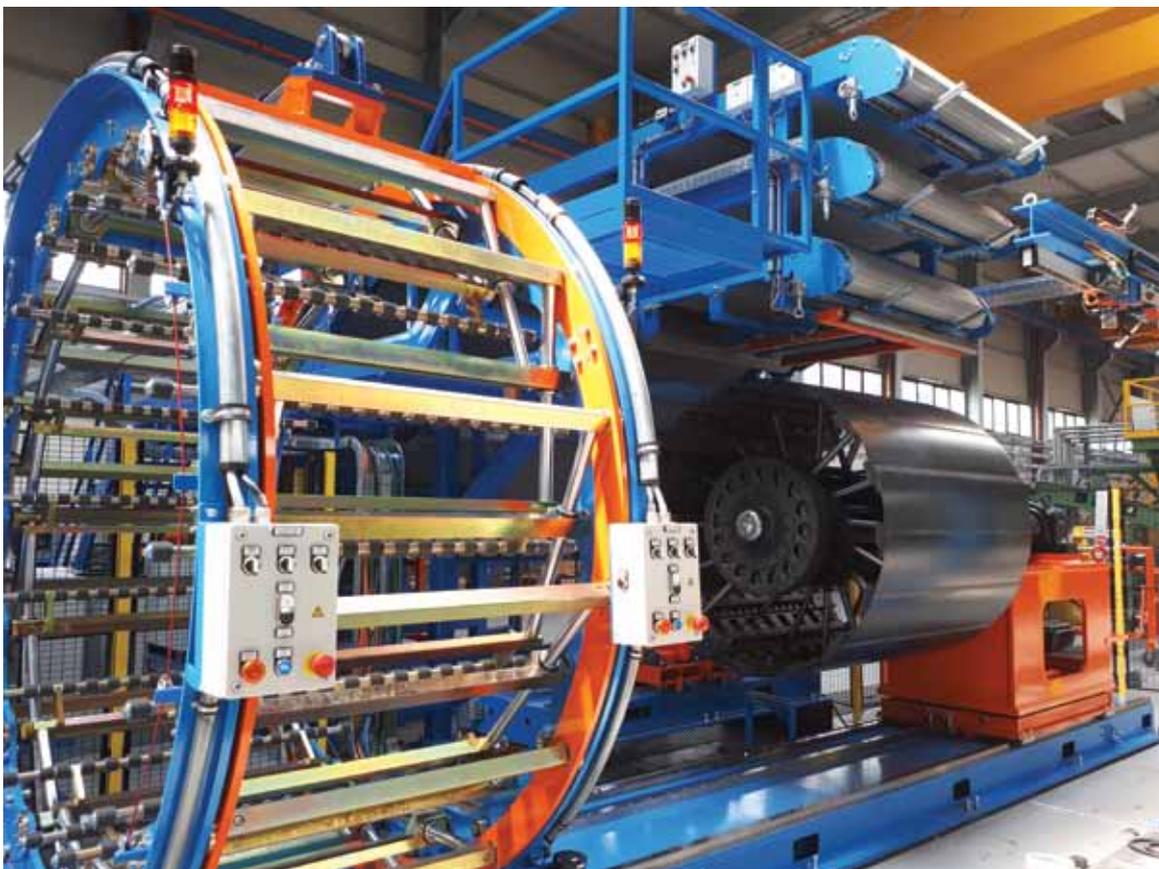
Software solution

Most of the companies in its customer portfolio are not equipped with integrated supervision systems, especially for the production process. Those companies simply exchange data within their databases regarding the manufacturing process aspects, for example recipe data

loading necessary for machine work, neglecting the aspects related to the plant components. Those topics are usually managed in a traditional way, not integrating the new production technologies that allow improving the working conditions by increasing the productivity and the production quality of the plants.

Being a partner who can cooperate, apart from being a mere supplier, even in the areas of plant management, is a distinctive aspect that no competitor is currently able to provide. The Company can customise and enhance the essential engineering functions for its applications, such as the total integration of external software tools developed with research institutions for satisfying the most demanding customers.

For the development of this new powerful software platform, Marangoni Meccanica has started an important collaboration with the Department of Industrial Engineering of the University ▼ Belt package transfer





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of Trento - Laboratory of Maieutics, which will allow sharing knowledge and skills that can greatly improve the technical culture of its designers. The Department research group has been working for many years on the development of technologies, so it is an important reference in the industrial engineering field, having the advantage to count on the skills of all the project members within the company. The project consists of software writing for industrial automation components, characterised by a strong inter-disciplinarity among sectors such as user interfaces, industrial process engineering, communication networks and software design.



▲ Unistage Bay

Reasons underlying the research

The modern scenario of industrial plants requires an ever-increasing level of integration of functions such as data communication management, operator-machine interfaces, data processing and connections to company systems for production and maintenance management. Industry 4.0 responds to the latter needs, as this new industrial revolution aims to develop data communication networks via the Internet and similar networks. This project adheres to the basic values of this new development context, namely the development of machine data management systems (SCADA - Supervisory Control And Data Acquisition), data analysis and communication on data networks, as well as creating interfaces for the operator of the production plants (HMI - Human Machine Interface).

Therefore, supervision and control software play a fundamental role in the management of complex machines and systems.

HMI and SCADA are two terms closely related to the extent to which an operator is an integral part of the components of a plant management system.

HMI and SCADA

Human-Machine Interface (HMI) is a control panel designed for interactive communication between the operator and the process / machine carrying out the tasks of entering orders, display the results connected to the process / machine status in real time. Moreover the

▼ Machining area



Marangoni Machinery vision is to let HMI to become an effective gate to get access to the whole production machines even into a network and/or stand-alone mode: in such a way the Customers can have access to a variety of information (operations, maintenance, alarms etc.) to enhance the production lines to be in real-time controlled.

SCADA system is a Supervision, Control and Data Acquisition System. It is also referred to as 'telemetry,' a system having a full data communication and data control, which includes two-way communication (measurement and control) between the process system and the operator's position. In addition to this, the capacity of SCADA systems to control and monitor multiple devices, such as remote terminal units (RTUs) connected with process transmitters and final control devices, implementing basic control functions such as Start / Stop, or multiple regulation circuits including safety shutdowns, warning, notice, or PID controllers, allow the RTU devices to communicate digitally with a Master Unit (MTU) terminal in a central position where operators can monitor the process and intervene in it.

This HMI SCADA software is used in all sectors with the aim of providing a direct means of machine control, automation, security, data storage, analysis, and communications as well as allowing connectivity to a wide range of functions within the system.

In a few words the HMI software is used to monitor SCADA systems.

Customers have been increasingly demanding SCADA / HMI systems with the following features:



▲ AgriFast 2nd stage

1. Improve control and monitoring of the process, system or plant.
2. Manage important information, such as warnings, alarms, machine shutdown, and increase productivity by decreasing shutdowns. Analysing data in real time in order to prevent unexpected stops, and resume activity more quickly.
3. Simplify the interaction between systems of different manufacturers with proper communication modes.
4. Optimise the effectiveness of user control on data and help with alarms or data groups to know the status of the system and the possible problems.
5. Enhance the quality for the correct functioning of the system.
6. Reduce operating costs through the integration and the maintenance of the process and plant.

It consists of additional software to complement our supply of machines and plants whose complexity requires systems allowing a more intuitive and quick management control, helping our customers to monitor the process in real time, especially remotely through communication networks (data, videos, etc.).

Aim of the Project

This project aims to create an HMI / SCADA software platform offering:

- A user-friendly application in terms of persistence, business logic, graphic interface;
- The use of technologies for the creation of architectures and software structures that guarantee the optimisation of software writing and maintenance, through proper software patterns;
- The creation of responsive software allowing their use on multiple web browsers and various platforms (PC, tablet, mobile);
- The creation of suitable documentation both for the upstream analysis of the engineering process and for the control of the final product.

Goals

The result of the project is the creation of a development environment consisting of a series of applications able to:

- manage basic recipes for each type of machine
- communicate with the PLC by managing the flow of information that starts and arrives from it.
- have a graphical interface (HMI) that can be easily used in all the application contexts (design, control, monitoring, visualizations, reporting).
- allow the use on multiple web browsers and various platforms (PC, tablet, mobile) at the highest possible application level.

Basically, Marangoni Meccanica customers ask for a support where, in addition to providing machines and systems, it can integrate product with their "company system," allowing an easy, functional use even by staff whose level of specialisation is not uniform. Hence the success of this project is to have a tool enabling the company to be for its customers more and more a partner, and not only supplier.



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*Over the next five years, the industry is poised to enter a transformative era. Marangoni Meccanica SpA, global tyre industry leader, especially in Agriculture and OTR segments, is perfectly positioned and prepared to play a leading role in this evolving context, "thanks to our creativity, flexibility and engineering innovation capabilities," assures the company's **CEO Riccardo Mastronardi***



Perfectly in lane for era of transformations



◀ Riccardo Mastronardi

What drives you to start afresh as a new entity? How much do you think Marangoni Machinery impact global tyre industry?

Marangoni Machinery (MM) has a great technological background and exceptional innovation and engineering capabilities. The new shareholders clearly perceived that this potential in the last years has been partially untapped and big opportunities were ahead of us, therefore they decided to invest. MM has a unique value proposition in the global tyre industry, especially in the big tyre segments like Agriculture and OTR. We are driven by a continuous Customer's focus: each new feature is designed to support Customer's growth and performance, oriented to best efficiency and quality.

How does Marangoni Machinery see the tyre industry evolving in the coming decade?

Technology innovations and developing end-user requirements are driving the off-the-road tyres market into unexplored territory, presenting fresh challenges to manufactures and suppliers. The global market for off-the-road (OTR) tyres is estimated to significantly grow in the next years.

From an end user's perspective, the imperative is to continue to drive efficiency and productivity, even as equipment gets larger and places additional stress and performance demands on the tyre.

Over the next five years, the industry is poised to enter a transformative era and we in MM believe to be perfectly positioned and prepared to play a leading role in this evolving context, thanks to our creativity, flexibility and engineering innovation capabilities.



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What is your added strength in R&D and also in business development?

MM R&D is oriented to a new Customer's experience approach. The new machines are tailor designed according to Customer's needs and requirements in order to achieve the best quality output, and at the same time best reliability, safety and productivity.

As customer demand and technology developments change, what challenges do you foresee in providing tyre making machinery?

Main challenges are about time to market and installed base refurbishment. Nowadays Customers are looking for renewal plans to get new machines within short lead times, plus new equipment oriented to increase productivity for premium products as well, so our challenge is to be ready for both business needs by





▲ Drums building and test stands

servicing Customers on reduced lead-time and on increased quality output.

What new products do you plan to offer?

MM is mainly oriented to “turn-key systems”: from complete Tyre Building Machines up to all comprehensive “Production Site” composed by multiple production units with software supervision platform to get an integrated and efficient management manufacturing system architectures. About new products MM is offering new tyre building core technologies (drums, toolings and robotics) to enhance the tyre productivity and quality by proprietary patents and proven solutions, mostly oriented to Agro and OTR industry areas (Stage-1, Stage-2 and Unistage solutions with Strip-Winding embedded architectures).

Any move to widen your network of sales and after-sales services?

We are definitely strengthening our Sales and After Sales Organisation in order to better satisfy our growing Customer Base. We are also planning to internationalize our After Sales Services to be closer to our Customers’ production facilities and serve them better and quicker.

Are there any new areas in tyre industry that Marangoni Machinery plans to cover?

As said above, our company is characterised by our strong and distinctive engineering capabilities. Those capabilities allow us to tackle disparate challenges and solve them in a creative, effective and efficient way. Our deep knowledge of the Tyre Industry together with our distinctive capabilities, open for us unexploited opportunities that we plan to explore in the next years.

What other new elements have been included in the new entity?

We are in the process of transforming a family owned business into a structured and managerial modern company where M&A opportunities will be also explored.

What is your take on the general economic slowdown, particularly in the Asian markets?

Frankly speaking, till now, we are not experiencing any slowdown in our business leads, especially in Asia. In our Agriculture and OTR segments in Asia we experience a significant growth led by China and India, supported by all end-use sectors; much of the gain in radialisation is seen in this region; mechanisation of agriculture is definitely a major growth driver. We need to carefully consider the significant threat to global economic growth amid coronavirus outbreak.

Do you see the new regulations in import/export in some markets impacting your business?

Not yet, potentially yes, even if our solutions are not so easily replaceable and customers loyalty is very high. ■