



SPECIAL ADVERTISING SECTION



FEDERMACCHINE 

THINK ITALY. THINK INNOVATION.

SEEKING AN INNOVATIVE MACHINERY, MANUFACTURING,
OR ROBOTICS PROVIDER? **LOOK TO ITALY.**

When you think of Italy, what first comes to mind? Most likely, it's some combination of food, fashion, fine wine, and fast cars.

But Italy is equally important for its leadership in machinery, advanced manufacturing, and —most recently—robotics. »



AMICO, the 66-pound humanoid robotic concept from Turin-based manufacturer Comau, offers new levels of flexibility, precision, and speed for work in small spaces.

ITALY IS:

#2 IN GLOBAL
COMPETITIVENESS
IN MACHINERY

AMONG THE
WORLD'S
TOP 3
PRODUCERS OF
MACHINED PARTS

AMONG **JUST 5**
COUNTRIES WORLDWIDE
WITH A MANUFACTURING
TRADE SURPLUS
EXCEEDING \$100 BILLION

AMONG THE
TOP 5
NON-U.S. HOSTS
FOR ADDITIVE
MANUFACTURING
TECHNOLOGIES

HOME TO SOME OF EUROPE'S
**MOST
ENVIRONMENTALLY
EFFICIENT**
MANUFACTURING SYSTEMS

Source: Italian Trade Agency and FEDERMACCHINE

According to the Italian Trade Agency and FEDERMACCHINE, the federation of associations representing Italian machinery manufacturers, Italy is:

- Among the world's top three producers of machine parts.
- Among the top five non-U.S. hosts for additive manufacturing technologies.
- Among just five countries worldwide with a manufacturing trade surplus exceeding USD \$100 billion.
- No. 2 worldwide in global competitiveness in machinery.
- Home to some of Europe's most environmentally efficient manufacturing systems.

In addition, Italy is No. 2 in the European Union in robot density—that is, the ratio of robots to manufacturing employees, according to the International Federation of Robotics (IFR), a trade association.

"Italy is at a very positive stage, in a very positive period," says Maurizio Forte, U.S. executive director of the Italian Trade Agency, the Italian government organization that promotes the internationalization of Italian companies and provides information, support, and advice to both Italian and foreign businesses. "We are Europe's second-largest manufacturing economy. Unemployment is down; the dollar is strong."

For all those reasons, Italy is fast becoming an attractive destination for businesses seeking innovation partners.

Centuries of Innovation

Italian trade officials acknowledge that Italy's expertise in advanced manufacturing, robotics, and similar areas isn't yet well-known worldwide. As Forte puts it: "People still tend to think of Italy only in terms of consumer goods." But about 4,600 companies are producing industrial machinery and related products in Italy today, employing nearly 180,000 people—a significant percentage of the workforce in a country with a population of just under 60 million. In 2014, total industrial production reached USD \$46.5 billion, with nearly three quarters of that represented by exports.

Italy's technology expertise is actually nothing new. "Italy has a centuries-old tradition of designing and building machinery," notes Italian Trade Agency President Riccardo Maria Monti. (Just how far back does that designing-and-building tradition extend? Leonardo da Vinci, one of history's greatest engineers



Left to right: Maurizio Forte, Arturo Baroncelli, and Alberto Maria Sacchi. Next page: Italian professional basketball player Marco Belinelli, now with the Sacramento Kings, shoots hoops with a Comau Racer robot on an NBA-regulation court.

and architects, was already busy developing his many inventions throughout Italy more than 500 years ago.)

Today, innovation is baked into the country's business culture, along with another distinctly Italian ingredient: a highly cooperative industrial environment. "There's a very strong tradition of engineering collaboration between companies," says Alberto Maria Sacchi, CEO of the Milan-based Meccano Group. "They believe in creating common platforms to guarantee consistent quality and service in new markets." Not surprisingly, Italy's industrial sector also enjoys tightly coordinated supply chains that evolved from the country's historic practice of clustering entire industries—for instance, shoes, chairs, or mechanical parts—in regional districts, and it boasts a world-class base of system integrators as well.

Entrepreneurism is an additional part of the recipe. "If you meet a typical Italian entrepreneur, you will meet a person who is fully in love with his product and very reactive to new opportunities and new markets," says Sacchi, who is also a board member and past president of FEDERMACCHINE.

Italian manufacturers tend to place high value on building and maintaining strong long-term relationships and providing customized service that can adapt quickly to meet changing market demands, Sacchi adds. "Generally speaking, there is a strong empathetic attitude toward customers. We follow their needs; we are very flexible."

Italy boasts one other competitive advantage: a higher-education network that includes some of the world's oldest colleges. Top technical programs at schools in Milan, Turin, Rome, Pisa, Genoa, and other Italian cities provide the industry with a steady stream of scientists, technologists, and engineers.



"Now we are extending that long history of engineering excellence into next-generation manufacturing," Monti says. "Italian companies are leaders in the use of robotics and advanced manufacturing techniques, and our world-class universities and research centers allow us to keep innovating in these areas."

Innovation in Automation

No question: Industrial robots represent one of today's top global technology trends. About 1.5 million industrial robots are used on the world's factory floors today. Within three years, that number will reach 2.3 million, according to the IFR's latest World Robotics report. In 2014, global robot sales increased by 29 percent over 2013, with the 229,261 units sold representing "by far the highest level ever recorded for one year," according to the report.

In 2014, Italy ranked second in the European Union and seventh worldwide in the number of industrial robots in use—more

TODAY, INNOVATION IS BAKED INTO ITALY'S BUSINESS CULTURE, ALONG WITH ANOTHER DISTINCTLY ITALIAN INGREDIENT: A HIGHLY COOPERATIVE INDUSTRIAL ENVIRONMENT.

than 6,200 total, according to the IFR. Italy's robot density ratio of 155 industrial robots per 10,000 manufacturing employees is among the world's highest, and more than double the worldwide average of 66. In Italy, as elsewhere, robot use is growing fastest in the automotive and electronics sectors, but other industries are catching up.

"The industrial robot has become the way—not one way, but *the way*—to manufacture a lot of things," says Arturo Baroncelli, IFR president and business development manager for Comau Robotics, which is among the world's largest producers of robots. (Comau Robotics is a division of Turin-based Comau, a market leader in advanced manufacturing, automation, and service solutions; Comau's parent company is Fiat Chrysler).

What's driving demand? "Robots are able to do things humans can't do," Baroncelli says. For instance, robots can lift heavy objects, reach across long distances, pick and place more than 150 small items per minute, withstand high heat and other conditions harmful to humans, and function around the clock. Advanced robots are programmable; they can function in multiple positions, and they can make decisions. (They can even learn, as shown in a Comau Robotics commercial in which professional basketball player Marco Belinelli of the Sacramento Kings teaches a Comau Racer robot to shoot hoops.)

Baroncelli and others emphasize that industrial robots aren't eliminating jobs; instead, they're typically taking over work that's too difficult, dangerous, or unpleasant for humans to do. In addition, robots do best when performing the same functions over and over; assigning them to highly repetitive tasks can free up human employees for more skilled work. Finally, experts say, growing demand for automation is actually generating robotics-related jobs in areas ranging from engineering to service and repairs. "We still need people to invent things, to maintain things," Baroncelli says. Put another way: Human innovation—historically among Italy's greatest strengths—will continue growing right along with its robotics industry.

Italian manufacturers welcome inquiries from potential partners and customers. Officials at the Italian Trade Agency, which has offices in six U.S. cities, and FEDERMACHINE stand ready to personally connect North American businesses with leading Italian solution providers.

Italian Trade Agency: 888-ITALTRADE / 312-670-4360 / www.machinesitalia.org
FEDERMACHINE: +39 02 26 255201 / www.federmachine.it/en/

 **Machines
Italia**

FEDERMACHINE 