

Robotics and AI: Transforming the Manufacturing Industry - An Interview with Marina Bill, President, IFR



Marina Bill, President, International Federation of Robotics (IFR), provides insights into global robotics trends, including increasing installations, user-friendliness, digitalization, and sustainability. She highlights the significance of Artificial Intelligence and expresses enthusiasm for an upcoming assembly at RobotHeart in Italy, fostering innovation and collaboration within the robotics sector.

Could you give us a brief, updated overview of the sector? What about robotics consumption in Europe and US, and what about Asia?

The worldwide industry of robotics is experiencing a positive phase. Based on our data, in 2022, over half a million new robots were installed, corresponding to 5 percent more than the installations recorded in 2021. Asia took the lion's share, taking up 73 percent of consumption, followed by Europe with 15 percent, and then by the Americas with 10 percent.

China alone accounts for 52 percent of world demand. Therefore, it is clear where automation is pushing more, but interesting performances are registered in other countries, including the United States and Italy. In 2022, the United States saw the number of new installations grow by 10 percent over the previous year, driven by investments from the automotive sector.

In Europe, 71,000 new robots were installed in 2022. Germany acquired 36 percent of new installations, however, showing a slight decrease versus the previous year; on the other hand, Italy absorbed 16 percent of the total in the area, marking an 8 percent increase in consumption compared to 2021.

The year 2023 should also have a positive sign: we expect a 7 percent rise in the demand for robots, corresponding to about 590,000 new units. The trend should continue in 2024, when we expect sales to reach 600,000 units.

Which are the main innovation trends for robotics? The state of the art and the next future.

User-friendliness, digitalization, and sustainability: undoubtedly, these are the three main trends that most influence—and will continue to influence—the robotics sector in the near future. In particular, the first trend concerns the accessibility and user-friendliness of robots, so that they can be managed and driven by all operators, even less experienced ones.

The second trend, that of digitalization, is indispensable for the sector today. Indeed, robots are now part of a connected digital ecosystem, which includes cloud computing, big data, 5G, and AI and brings benefits in terms of costs, speed, and variety of applications.

Finally, sustainability: robots considerably contribute to increasing the competitiveness of enterprises and, in particular, to optimizing material and energy costs. In the next few years, we expect numerous innovations and advancements in this field!

How about the deployment of AI and robotics in the manufacturing industry? The state of the art and the next future.

Artificial Intelligence is an essential element in the connected digital ecosystem just mentioned, and its solutions are valuable instruments to make the most of the use of robots in factories. Population decline, difficulty in finding and having qualified personnel available, as well as the possibility of unpredictable situations, such as the pandemic in 2020, make these technologies increasingly indispensable.

Robotics and artificial intelligence go hand in hand more and more, as they can represent an interesting response to the need to bring a part of production back to traditional countries as well as to the development of the business activity of small- and medium-sized enterprises. Thanks to artificial intelligence, these companies can pursue their digital development path faster and more consciously. In order to facilitate this 'leap into innovation', IFR has just launched the GO4ROBOTICS project, a digital platform for new users with little knowledge or little experience, offering support, guidelines, and help in understanding and making the best use of the latest solutions in these fields.

IFR will organize its Assembly at RobotHeart - 34.BI-MU (October 9-12, 2024), and we are really honored to host your meeting. Why did you choose RobotHeart?

We chose Italy because of its increasingly decisive role in the industrial robotics market, its ongoing commitment to issues such as education, training, and research, its high-level offering in terms of innovative solutions, and the presence of numerous start-ups in the area focused on service-robotics are the elements that have most influenced our decision.

In particular, we decided to organize our meeting at RobotHeart: The Art of Smart Robotics, the area dedicated to robotics and hosted by 34.BI-MU at fieramilano Rho, because this trade show is the Italian leading event for the operators of the manufacturing industry. With our presence, we intend to highlight the importance of Italy in the sector, thus honoring its growth and innovative contribution. In addition, the assembly will take place almost at the end of my term as president of IFR, and therefore, this meeting will be even more valuable and meaningful for me.



"IFR will be at RobotHeart: The Art of Smart Robotics, a real co-creation event for all players of the sector"

As you visited the last (and first) edition of RobotHeart, held in October 2022, could you describe your impressions and comments about it?

I must say that I was really impressed with the 2022 edition! A large number of visitors, an extremely positive atmosphere of sharing, participation, and interest. The initiative was an ideal place for meetings, intense exchange of views, synergies, and high-level insights into the world of the manufacturing industry. It was a very favorable experience for us, and this convinced us to confirm our participation in the 2024 edition, too.

As president of IFR and also as representative of one of the most important exhibiting companies, what do you expect from the next edition of RobotHeart (October 9-12, 2024)? Have you any suggestions or tips?

The sector of robotics is now a wide and varied ecosystem, including multiple figures operating in a variety of disciplines. RobotHeart of BI-MU proved this perfectly at the 2022 edition, hosting manufacturers, system integrators, research organizations, universities, and visitors coming from different fields in an atmosphere of complete sharing.

Therefore, my advice is to further enhance this aspect, which makes RobotHeart a unique event. RobotHeart can and must be a 'co-creation event', the result of constant dialogue and discussion among the attendees, a place for exchanging ideas and presenting technological innovations, and a balanced mix of exhibition and cultural insight. Because this is the fundamental basis for the development of further innovations in the world of robotics.

Image Source: International Federation of Robotics (IFR)