



**International production technology highlights at EMO
Hannover 2023 – Trade fair offering information, dialogue
and networking to Hungarian production experts**

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World Tour**

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“Hello to the EMO-Community in Hungary!”

A very warm welcome to the EMO Hannover 2023 World Tour, which is making a stop in Hungary today. We are delighted about your interest in our fair, which is scheduled to open its doors again from September 18th to 23rd. My name is Martin Göbel. I am Head of Trade Fairs at VDW, the EMO organizer. This is the German Machine Tool Builders Association, based in Frankfurt am Main, Germany. We represent our industry within Germany, and also organize international trade fairs for it. Our flagship event is EMO Hannover, the world's leading trade fair for production technology. I'd now like to describe some of the highlights of the event to you.

Production technology driving industrial development forward

EMO Hannover showcases the current state of the art in production technology internationally – but it also looks ahead to future developments. We very strongly believe that this leading trade fair can make an important contribution to the development of industrial production in Hungary.

The Hungarian economy recovered quickly after the pandemic. The gross domestic product (GDP) rose by a sizable 7.1 percent in 2021, but also grew at an above-average rate of 4.9 percent in 2022. However, a slowdown is expected in 2023 due to the pressures arising from the Ukraine war. Growth of only 0.6 percent is forecast for this year.

According to our sources at Germany Trade and Invest (GTAI), the manufacturing sector was the primary contributor to growth. The increase was particularly strong in the electrical engineering industry, especially in battery production. The automotive and supplier industries, mechanical engineering and the food industry also posted substantial gains.

Oxford Economics, the VDW's forecasting partner, is expecting the key customer industries to invest EUR 4.7 billion in machine tools in the current year. Most of this money is going to the electrical engineering industry.

Supported by government funding, gross fixed capital formation is providing further stimulus for growth. Companies are receiving help in modernizing their business and in introducing the latest technologies. Modern production technology is of utmost significance, both directly and indirectly, for the

planned expansion of industry. Those in positions of responsibility in Hungarian industry, government and investment institutions can obtain all the information they need at EMO Hannover on the new technologies which can be used to implement these projects.

Production technology facing major challenges worldwide

Since the mid-1970s, EMO Hannover has been highlighting the developments in production technology for its customer segments. Every two years, it brings together all the key players in the sector. All the big-name international manufacturers meet at the EMO, with two thirds of them coming from abroad. They present their latest technical innovations for industrial production: the 2019 event attracted around 120,000 trade visitors from all over the world. They come to inform themselves and make their investment decisions based on the very latest information. The information they seek can relate to individual machines that they need to purchase or replace, the production system or the complete production line – after all, EMO exhibitors cover the entire value chain. Just under 750 experts traveled to Hanover from Hungary in 2019 for this reason.

For us, production technology functions both as an enabler and as a driver of technical progress in industrial production. In any country, it is an indispensable factor in ensuring that the industry remains up-to-date and competitive. Productivity, quality and flexibility head the list of requirements. Digitalization is providing a further boost to all three of these goals.

Today, however, it is about much more than just taking machine performance *higher, faster, further*. Rapid technological and social developments are giving rise to high levels of volatility and are adding further layers of complexity to doing business. Production technology creates solutions for the challenges currently facing customers. Processes are becoming more efficient and sustainable, and workflows more flexible. New value-added strategies and business models are also emerging. Customers' B2B demands are changing. Products are evolving rapidly. And that is why smaller batch sizes and more flexible production methods (including rapid changeovers) are in demand. Industry also has to be able to adapt to the changing conditions which are arising from the new political priorities, new laws and global agreements, such as the Green Deal in Europe.

That is the background to the "Innovate Manufacturing" claim of EMO Hannover. On the one hand, it identifies the trade fair as a platform that reflects the changes taking place in industry. EMO Hannover networks the leading minds in the industry 365 days a year, offering a forum for dialogue about the latest technical trends and innovations, and for communication with international experts on the supplier and user sides as well as with research specialists. On the other hand, the "Innovate Manufacturing" claim invites manufacturers and customers of production technology to improve their production systems, tools and measuring systems, to broaden their range of products and services, to automate processes, to tap into new markets, and to join networks to ensure that they remain competitive in the future. EMO Hannover shows the best ways of achieving this. Companies are also confronted with requirements for sustainability, the design of new busi-

ness models, the redesign of workplaces and the switchover to new communication models.

Business, Connectivity and Sustainability – Production technology helping to shape change

Production technology itself is currently undergoing a transformation, yet it is also part of the solution. To demonstrate this, EMO Hannover has created “Future Insights”. These spotlight three social topics impacting the manufacturing industry and its ability to provide solutions.

The Future of Business focuses on new markets, new business models, opportunities and the potential offered by adopting a culture of innovation. It also emphasizes the introduction of agile methods, the development of methodological know-how and the adaptation of structures and working methods. In this respect, EMO Hannover represents a vast knowledge platform, not only for technological, but also for organizational, strategic and methodological aspects relevant to companies. Success in these areas increases efficiency and thus maximizes the opportunities for better business.

Hungary's economy is well integrated into international trade networks and depends on exports. These account for three quarters of the country's GDP. Top exports include vehicles and vehicle parts, electrical engineering, electronics, chemical products and machinery. Modern production technology is a precondition for success on the world market. EMO Hannover is just the right platform for evaluating – and making direct comparisons between – such pioneering technologies and, if desired, also for finding suitable business partners as suppliers. This is because it is broadly positioned and showcases the entire global range.

But it's not just about buying technology, it's also about potentially cooperating with foreign partners. EMO Hannover can also be a great help in setting up the necessary contacts and networks for this. The scientific community related to production engineering is represented in great force at the fair. It presents its expertise and current research projects on digitalization and sustainability in production. At the same time, EMO Hannover provides a forum for setting up new business and investment partnerships that can give the Hungarian economy a further boost.

The availability of labor, especially trained specialists, is becoming an increasingly important location factor. The shortage of skilled workers is making itself felt in Hungary, too, as it is almost everywhere in Europe. You are increasing your efforts to modernize the secondary and higher education systems in order to bring them in line with the needs of industry. Here, too, EMO Hannover has expertise to offer. Germany, with its “dual” training system, has served as a major role model for many countries all over the world for decades. However, we are currently seeing a fundamental change in the demands being placed on modern education systems. The engineering sector in Germany has been committed to training up skilled workers in the metalworking sector for more than ten years now. Professional training is the basis of the sector's success. On the *Special Training Stand*, the Youth Education and Development Foundation for Mechanical Engineering will be demonstrating at EMO Hannover 2023 how the engineering sector is doing just this. Numerous partners from industry, schools and universities will present appropriate tools and ideas for education and training. They will also be showing the best ways of aligning their courses

with companies' current requirements in technology and digitalization. Key aspects here include Industry 4.0 and connectivity. The EMO offers Hungarian managers in this field the opportunity to discuss the topic in depth with international experts.

This dovetails nicely with the second Future Insight, *The Future of Connectivity*. This focuses on the trends surrounding Industry 4.0, the Industrial Internet of Things (IIoT), digital business models, predictive maintenance, machine learning, connectivity, interoperability and artificial intelligence, augmented and virtual reality applications. IT and software engineering are key factors in production technology today, while data mining represents an opportunity for new business models. Connectivity is the basis for vertical networking within factories and for horizontal networking with suppliers and customers along the value chain. EMO Hannover 2023 is showcasing both in a new exhibition focus on *IoT in Production*. Our aim here is to bring together all aspects of the Digital Factory.

Open interface standards for communication between different machines, devices and software are an important basis for networking. In Germany, we have been driving forward the development of a *Global Production Language* based on OPC UA over the last few years, publicizing and promoting it internationally under the *umati* brand. It is attracting a great deal of interest worldwide. The live *umati* demonstration at EMO Hannover 2023 will also provide answers to a large number of questions. There we will be teaming up with various manufacturers and using different systems to demon-

strate (from the shopfloor to the IT structure) how networking works, and how data can be used to optimize production.

Digitalization is at the heart of the startup scene. We're planning a highly effective show for international start-ups at EMO Hannover, in which Hungarian companies are more than welcome to take part. The *Start-up Area* will feature young companies looking to gain a foothold in the production technology market and to present fresh ideas to their users. The fair offers them a platform where they can make themselves known, find customers and investors – and network with established suppliers.

The third Future Insight is called *The Future of Sustainability in Production*. Sustainability is certainly one of the most pressing challenges of our time. Sustainability includes environmental conservation and carbon neutrality, but much more besides. If the rethinking of production technology is to be successful, sustainability must be taken into account early on in the planning of investments. Waste heat recovery, the use of renewable energy sources, energy and material efficiency, the economical use of water, cooling lubricants and packaging – these are all crucial aspects that help achieve greater sustainability in production. These aspects affect start-ups, but the greatest impact is on the established companies. The plans cover new machine development, in-house production and complete factory planning.

EMO Hannover will present preventive approaches, solutions and ideas for production and factory planning methods which make sparing use of resources and are climate-neutral. Also featured will be closed-loop economies in production, circular

value creation, energy-efficient production, sustainable supply chains and safe workplace design. In addition to the numerous individual exhibitors showcasing such solutions, the *Future of Sustainability in Production Area* also takes an in-depth look at production, linking scientific concepts with practical implementation. The main focus is on energy efficiency, a topic that we believe has not received sufficient attention to date, but one that holds a great deal of potential. The special show will be accompanied by a forum featuring a keynote and best practices which highlight solutions for machines, components and the production environment.

With its many modernization efforts and its plans to expand its higher-end value chains, Hungary is now poised to reduce its industry's carbon emissions using new technologies.

Each of the Future Insights stands alone. But there are numerous areas of overlap. New business models can emerge from networked production. Sustainable products can be used to open up new markets. Production which is more efficient conserves resources. Progress in all three fields is taking industrial production to the next level – the ultimate effect being to "Innovate Manufacturing".

Many aspects of interest to Hungary at EMO Hannover

Ladies and Gentlemen, Hungary is already taking the next steps in its own development. Here, your country is looking to provide even more incentives for investment from abroad. Modern machine tools and production systems are needed to build an efficient industry. In 2021, Hungary's consumption of machine tools, an indicator of the growth of industrial production, was put at EUR 270 million. Demand is met almost ex-

clusively by imports. The main suppliers are Germany, China, Turkey, Taiwan and Austria. Currently, almost 900 exhibitors have already registered to come to EMO Hannover 2023 from these five countries alone. A total of more than 1,500 exhibitors from 43 countries have registered so far. They include Strigon and NCT from Hungary. Hungarian visitors will therefore be treated to a comprehensive array of products from their top suppliers along the entire value chain. There will also be a wide range of offerings from many other countries that are worth checking out.

Thank you very much. I will be more than glad to answer any questions and discuss the prospects for Hungarian production experts at EMO Hannover.

Background

EMO Hannover 2023 – World's Leading Trade Fair for Production Technology

International manufacturers of production technology will be presenting smart technologies for the entire value chain at EMO Hannover 2023 from 18 to 23 September 2023. Under the banner of Innovate Manufacturing, the world's leading trade fair for production technology will showcase the entire range of modern metalworking technology which is at the heart of every industrial production process. The latest equipment will be on display, as will efficient technical solutions, product-related services, sustainable production methods and much more besides. The main focus of EMO Hannover is on cutting and forming machine tools, manufacturing systems, precision tools, automated material handling, computer technology, industrial electronics and accessories. EMO visitors come from all major industrial sectors including machine and plant construction, the automotive industry and parts suppliers, aerospace technologies, precision engineering and optics, shipbuilding, medical engineering, tool and mold making, steel and lightweight construction. EMO Hannover is the number one international meeting place for the industry. More than 2,200 exhibitors from 47 countries attracted nearly 120,000 trade visitors from around 150 countries at EMO Hannover 2019. EMO is a registered trademark of the European machine tool association Cecimo. EMO is organized by the VDW (German Machine Tool Builders' Association), Frankfurt am Main, Germany.