

PRESS RELEASE

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Topics affecting the industry – EMO Hannover 2019 showcasing changes in production technology

Special shows highlighting latest trends and providing orientation

Dubai, 12 February 2019. – The theme of EMO Hannover 2019, scheduled from 16 to 21 September, is *Smart technologies driving tomorrow's production!*. The main priority for international visitors will be on obtaining information and orientation. Information on the latest developments from suppliers all over the world, but also on trends in automation, energy efficiency, occupational safety, new manufacturing processes and materials; orientation in the development of new business models, opportunities for cooperation with start-ups, meeting the demand for skilled workers or recruiting new generations of staff. "The VDW (Verein Deutscher Werkzeugmaschinenfabriken - German Machine Tool Builders' Association), organiser of the world's leading trade fair for metalworking, has selected the hottest topics and, together with its partners, is organising a wide range of special events," announces Christoph Miller, Managing Director EMO Hannover of the EMO organiser VDW at the EMO press conference on 12 February 2019 in United Arab Emirates.

additive manufacturing circle – focus on 3D printing process chain

Additive Manufacturing is the third trend topic being talked about in industry alongside Industry 4.0 and Automation. "A lot is happening here, there's huge interest and

a great need for information," says Miller. Disadvantages such as the time required to manufacture a workpiece, the lack of materials suitable for a particular application, automation potential or the need for post-processing are gradually diminishing. Additive manufacturing is increasingly being integrated into industrial production as a result.

Powerful and demanding customer sectors such as the automotive and aircraft industries or medical technology are increasingly requesting 3D printing and are themselves developing more and more parts with geometries that can only be made using additive processes. Examples include lightweight components made from complex materials or spare parts in the automotive industry, the hydraulic control block for the Airbus 320 or the T-pieces for the fuel system in the Airbus 400 M, as well as bionic structures in medical technology, implants, dental crowns, hearing aids and surgical instruments.

According to a recent VDMA survey, almost half the companies in the mechanical engineering sector, for example, are already using additive components. About half of those surveyed also use their own 3D printing systems to produce prototypes and samples. However, 44 per cent also print spare parts, serial parts and tools. About a quarter of the printed parts are made of metal.

Around one fifth of EMO visitors stated in the 2017 visitor survey that they were interested in 3D printing. That was much more than was being offered by the exhibitors at the time. "That's why we are organizing 2019 the *additive manufacturing circle* together with the Konradin Media Group," says Miller. The special show complements the offerings of the major manufacturers of 3D printing equipment, such as Renishaw, Realizer, SLM, Stratasys and Trumpf, who already have their own stands at EMO Hannover. The *additive manufacturing circle* is aimed at companies from the entire additive manufacturing process chain who are participating in EMO Hannover and can exploit the enormous interest shown by visitors. These include smaller system providers and companies in the software, 3D scanning, materials and production service sectors. For many customers, service providers are the first entry point to the technology.

"We are convinced that the *additive manufacturing circle* will become a magnet for visitors," says Miller. The process is developing at a rapid pace and there is still a great deal of untapped potential. The attraction of EMO Hannover is that the entire AM process chain, including post-processing, can be compared and contrasted with conventional machining processes.

EMO Hannover 2019 will be the main meeting place for production start-ups

Today, start-ups are no longer restricted to the consumer goods or financial sectors, but are increasingly also found in the capital goods industry. Megatrends such as digitalisation and networking, but also new forms of mobility, climate change, energy efficiency and customisation offer great opportunities for new ideas and thus also for start-up success. They can exploit – or even launch – the latest trends. They are regarded as being more creative than established companies, trialling new ideas more impartially thereby often enabling them to launch new products faster on the market. They also use new working methods: everything from fablabs and co-working spaces through to agile teams.

New products and new working methods offer interesting prospects for established companies in production technology. Experts from the etventure digital consultancy in Berlin, for example, advise established companies to use outsourced digital units to develop their digital business models. This is faster, less bureaucratic and gets around any inertia in the company. According to a recent study, however, only 8 per cent of German companies make use of this option.

"Of course, outsourcing a business unit is not the only option. You can also enter into partnership with a digital company," says Miller from VDW. These can be German companies, but also foreign start-ups. Many countries have a very dynamic start-up scene. These companies, too, are invited to participate, assuming that they work in the production field.

In order to promote cooperation and bring interested parties together, EMO Hannover 2019 is placing a strong focus on start-ups, giving them for the second time their own platform entitled *Young Tech Enterprises @ EMO Hannover 2019*. The 2019 format will be significantly expanded following the positive response from visitors at

the previous event. It will be broader-based and more business-oriented, offering the young companies which participate greater added value.

This is because young companies with a good business idea generally need money, expertise and leads to customers, major competitors and potential employees. EMO Hannover offers all this for the production sector. Investors, start-up sponsors and potential cooperation partners are therefore all invited to take part as exhibitors – in addition to the start-ups themselves. There will be individual and joint stands, for example from the German federal states, from the German Federal Ministry of Economics and Energy (BMWi) and from foreign investors. Finally, the exhibition will be supplemented by forums and pitches in which the young companies can introduce themselves. "The aim is to make the exhibition area the basis for a network of players in the industrial production field," says Miller from VDW, explaining the objectives.

The VDW has enlisted the services of Deutsche Messe AG as a cooperation partner for *Young Tech Enterprises in Production*. They have developed and successfully implemented this format in recent years, especially at the Hannover Fair. Another cooperation partner is the VDMA's (Verband Deutsche Maschinen- und Anlagenbau - German Engineering Federation) Startup-Machine, the central platform for bringing mechanical engineers together with start-ups. It will be identifying relevant mechanical engineering start-ups and promote dialogue between start-ups and SMEs.

***Digital Innovations in Production* prize to be awarded for the first time at EMO Hannover**

The special *Digital Innovations in Production* prize will be awarded at the fair as part of the *Young Tech Enterprises @ EMO Hannover 2019*. This competition is an initiative of the Federal Ministry for Economic Affairs and Energy. The prize is awarded to innovative business ideas which are based on modern information and communication technologies. The focus is on the innovativity of the new company, the team, its experience and skills and also its links with customers and partners. The prize money of EUR 10,000 for the special production award is supplemented by seminars, workshops and coaching as well as live pitches aimed at bringing the start-ups together with established exhibitors and investors. "The special start-up award, as

part of a major networking event which the VDW is staging on the second day of the trade fair, will round off the EMO start-up programme," emphasises Miller.

Recruitment initiative for skilled employees

Industry is currently facing not only technical challenges, but also increasingly problems arising from the shortage of skilled employees. The specific conditions may differ, but the need for action is apparent worldwide. "Many industrialised countries are struggling with demographic change, which basically means that there are fewer skilled workers who could migrate to other sectors," explains Miller of the VDW.

"Emerging countries, on the other hand, have sufficient numbers of young people, but in many cases no efficient training system to produce the skilled workers they need," continues Miller. In addition, the demands placed on employees in industry are currently undergoing fundamental changes as a result of networking and automation. Schools and companies must respond to this if they want to secure their future, regardless of the region of the world in which they are located. Therefore VDI-Nachrichten, magazine of Germany's biggest engineering federation will organize a two-day fair at the EMO Hannover on the 17/18th September. The target group are EMO exhibitors and customers presenting themselves as attractive employees. The fair is targeting academics and industry specialists. It will be accompanied with a forum on successful personnel marketing and job application tips.

Youth Education and Development Foundation for Mechanical Engineering working to ensure high-quality training

In Germany, the Youth Education and Development Foundation for Mechanical Engineering, a subsidiary of VDW and VDMA, has worked intensively over the past ten years to improve and update training in the metalworking professions in cooperation with vocational colleges, authorities and other institutions. It has also launched training projects for digitalisation. This involves ensuring proper training of teachers and trainers. "They teach new skills to all their pupils while always having to stay abreast of the latest technical developments themselves," says Miller from the VDW. "More than ever, future specialists must be able to provide communication solutions and to understand and manage integrated processes and systems," he explains. Mean-

while, the Youth Education and Development Foundation for Mechanical Engineering has developed an *Advanced Digital Manufacturing Processes Qualification* which specialists can obtain as a supplement to their training.

A web-based learning and working platform (MLS - Mobile Learning in Smart Factories) is an essential component of the entire training process. This system is designed for mobile devices. It creates a modern learning environment and enables teachers and trainers to support trainees more effectively and to translate new topics rapidly into concrete learning content. Trainees and their trainers can use the platform to create their own tasks and develop joint solutions. The content is currently available in German, but will also be translated into English in the future.

All of this will be presented at EMO Hannover 2019 as part of the special youth show. Together with partners from industry, vocational colleges and other educational institutions, the Youth Education and Development Foundation for Mechanical Engineering is presenting its training projects and initiatives for the metalworking professions and for technical study programmes. Young people poised to make career decisions as well as teachers and trainers attending the Youth Special Show should be aware of the significance of modern high-tech training in mechanical engineering today.

"No company is immune to the changes taking place in the world of work, no matter where they are based," sums up Miller. "It is best to tackle the employee-related challenges head on. The initiatives of the Youth Education and Development Foundation for Mechanical Engineering being presented at EMO Hannover serve as good models which can be applied in other countries," he concludes. The Youth Education and Development Foundation for Mechanical Engineering itself is already active internationally. It is training technology teachers in Italy or Croatia, for example.

The special youth show is aimed at fostering highly skilled young talent. New at EMO Hannover is the two-day "Recruiting Initiative", which is aimed at young professionals. These include both academics and skilled industrial specialists. Established EMO exhibitors and user companies make use of this special area to pitch

their offers to new employees. The special show will be accompanied by a forum on modern strategies for personnel development, recruitment and on tips for making successful applications. The organiser of the initiative is VDI-Nachrichten, the mouthpiece of Germany's largest technical and scientific association, with 150,000 individual members.

EMO Hannover 2019 – the world's premier trade fair for the metalworking sector

From 16 to 21 September 2019, international manufacturers of production technology will be spotlighting smart engineering at the EMO Hannover 2019. Under the motto of "Smart technologies driving tomorrow's production", the world's premier trade fair for the metalworking industry will be showcasing the entire bandwidth of modern-day metalworking technology, which is the heart of every industrial production process. The fair will be presenting the latest machines, plus efficient technical solutions, product-supportive services, sustainability in the production process, and much, much more. The principal focus of the EMO Hannover is on metal-cutting and forming machine tools, production systems, high-precision tools, automated material flows, computer technology, industrial electronics and accessories. The trade visitors to the EMO come from all major sectors of industry, such as machinery and plant manufacturers, the automotive industry and its component suppliers, the aerospace sector, precision mechanics and optics, shipbuilding, medical technology, tool and die manufacture, steel and lightweight construction. The EMO Hannover is the world's most important international meeting point for production technology specialists from all over the planet. The EMO Hannover 2017 attracted almost 2,230 exhibitors from 44 different countries, and around 130,000 trade visitors from 160 nations. EMO is a registered trademark of the European Association of the Machine Tool Industries CECIMO.

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