

HANNOVER MESSE 2020: How change becomes growth

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The manufacturing industry worldwide is grappling with the twin challenges of technological change and economic and political uncertainty. With its keynote theme of Industrial Transformation, HANNOVER MESSE 2020 focuses on the opportunities presented by innovative technologies, steadily growing and ever more readily available amounts of data, and a growing awareness of climate protection.

Four megatrends are changing the world: digitalization, individualization, climate protection, and demographic change. Industry is facing a big design task. The current economic and political climates pose additional challenges that make it difficult to maintain reliable partnerships.

HANNOVER MESSE shows global industry the way forward. "The way we live, produce things and work is undergoing extremely rapid change," says Dr. Jochen Köckler, CEO of Deutsche Messe. "The manufacturing industry is in the driver's seat. The challenge is to take the wheel and shape the change. At HANNOVER MESSE 2020, some 5,500 exhibiting companies will show how transformation can be positive, and how change can spark growth and progress."

Data: Source of efficiency and prerequisite for machine learning

In today's world, growth is built on data, and thanks to digitalization, the volume of data generated in industrial production processes is growing exponentially. Our ability to extract meaning from these data and turn them into profit is also growing.

Today's industrial technology solutions are interconnected. Machines and systems communicate and share information with each other autonomously, while software takes care of the documentation, monitoring and simulation. This data revolution is driving efficiency and is the prerequisite for machine learning and artificial intelligence.

Köckler: "At HANNOVER MESSE, we show how machines, production plants and intralogistics processes can be transitioned to the digital world. If you don't make this transition, then sooner or later you will be left behind by your competitors." Against this background, HANNOVER MESSE will feature presentations of software solutions for flexible manufacturing and B2B platforms for industry by big-name companies like Amazon Web Services, Cisco, Google, HUAWEI, IBM, Intel, Kaspersky, Microsoft, SAP, Siemens PLM and Software AG.

5G for industry

This year's HANNOVER MESSE will see the return of the 5G testbed infrastructure that premiered last year. Network equipment providers and users use the testbed to demonstrate the kinds of functionality that the new mobile telephony standard will be able to deliver. Köckler: "The ability to transfer large volumes of data in real time while maintaining high standards of data security is absolutely fundamental to the digital integration of industry. So, in Halls 3 and 21, we are setting up a real, working 5G network." Numerous individual showcases in these halls will be networked via 5G. "Nowhere else in the world will you find such a diverse array of 5G industrial use examples in a real, working 5G network, all under one roof," remarked Köckler.

The convergence of production and logistics

Digitalization is already a major driver of change in all areas of intralogistics. This includes automated warehouses, where processes are controlled by software programs, and where automated guided vehicle systems tour the halls at all hours of the day and night, delivering the right goods and materials in the right quantities to the right place at exactly the right time. Another key aspect is that production and logistics processes are converging and becoming increasingly interconnected, thereby making production more efficient, flexible and cost-effective. This year's HANNOVER MESSE will hold a mirror to these developments by prominently featuring logistics and intralogistics solutions.

Climate protection through innovation: the road to carbon-neutral production

Industrial production is energy-intensive. That is why resource efficiency, energy efficiency, and carbon-neutrality have been on the industry agenda for many years.

The climate debate currently taking place in society is helping with this by adding further momentum to the development of sustainable advanced technologies and carbon-neutral business models. Whatever form these technologies and business models take – whether smart solutions for energy, circular economy models or lightweight design – the resulting gains in terms of resource conservation, energy efficiency and process optimization will do more than merely counter climate change; they will be good for business as well. That is why one of the key messages of HANNOVER MESSE 2020 is that climate protection and forward-looking industrial policies are two inseparable sides of the same coin.

Energy in transition: Hydrogen as a motor for industry

Hydrogen and fuel cell technologies span both infrastructure and industrial applications and are steadily gaining ground in the alternative energy mix.

For many years at HANNOVER MESSE, the international “Hydrogen + Fuel Cells EUROPE” showcase has been a key driver of growth in the hydrogen economy. This year the group exhibit boasts record participation, with more than 200 exhibiting companies from around the world. Visitors gain a comprehensive overview of energy generation and use, transport and mobility, and the interrelationships between the building-systems, manufacturing, transport, and energy sectors.

E-mobility infrastructure and related technologies are also a big topic in Hannover: Exhibitors show everything from transportation systems and charging technology to electricity network infrastructure and stationary energy storage technologies.

Young guns: Tech startups shaking up the industrial sector

One important effect of digitalization is that it empowers small companies to achieve things that were once the exclusive preserve of the big industrial players. Startups are now able to punch above their weight with disruptive ideas and technologies that really make a mark.

Tech startups from all around the world are rising to the challenge and helping to shape the transformation of industry in all kinds of ways, whether in the form of AI-powered software, virtual reality applications, sensor technologies, smart materials or intelligent energy solutions.

Not only young disrupters present pioneering visions of the future of industry at HANNOVER MESSE. The show also profiles Indonesia’s impressive roadmap for the future. HANNOVER MESSE’s official Partner Country for 2020 is taking decisive steps towards the realization of Industry 4.0.

HANNOVER MESSE

HANNOVER MESSE is the world’s leading trade show for industrial technology. Under the lead theme of “Industrial Transformation”, the 2020 show will spotlight all the latest trends and topics, such as Industry 4.0, artificial intelligence, 5G and smart logistics. The display categories to be featured are “Future Hub”, “Automation, Motion & Drives”, “Digital Ecosystems”, “Energy Solutions”, “Logistics”, and “Engineered Parts & Solutions”. The program will be rounded off by more than 80 conferences and forums. The next HANNOVER MESSE will be staged from 20 to 24 April 2020 in Hannover, Germany, with Indonesia as its official Partner Country.

Source: Deutsche Messe AG