Maschinenbau-Institut GmbH
ein Unternehmen des VDMA

VDMA

Producing more intelligently

“Inspired by technology”

4th Congress

on 16th and 17th September 2013
at the EMO Hannover

In cooperation with

VDW EMO Hannover

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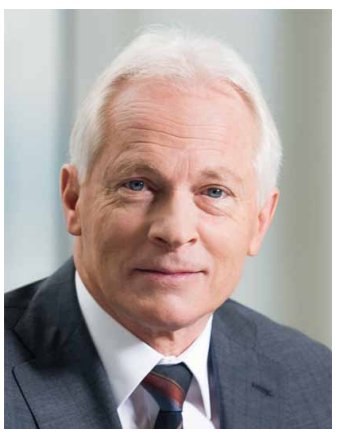
“Producing more intelligently”
4th Congress

“Inspired by technology”

Dr. Thomas Lindner, President, Verband Deutscher Maschinen- und Anlagenbau (VDMA) – German Engineering Federation



Martin Kapp, Chairman of the VDW (Verein Deutscher Werkzeugmaschinenfabriken – German Machine Tool Builders´ Association)

Dear Madam or Sir,

The 4th VDMA congress “Producing more intelligently” will take place for the first time this year in the course of the world’s largest platform for production technology, the EMO Hannover. The content of our congress will tie in perfectly with the EMO’s guiding theme, “Intelligence in production.” A further new development is that the congress is being jointly organized by the VDMA and the VDW (the German Machine Tool Builders’ Association), which is also the organizer of the EMO.

Based on the motto “Inspired by technology”, we have put together a program of high-caliber speakers for you. Top-flight experts from international industry will report on their experiences and success strategies in a global production environment.

Innovation, flexibility and technological expertise are key factors for success in global competition, particularly for manufacturing companies. Our three main topics, excellence, efficiency and intelligence, pick up on the themes that currently top the agenda in manufacturing technology.

Excellence focuses on lean production and flexible value chains. The topic of efficiency centers on sustainable and resource-efficient production. Finally, intelligence addresses the close dovetailing of the virtual and the real production world in the wake of Industry 4.0.

Why not join the discussion, meet your customers and business partners and discover first-hand how you can further bolster and develop your competitive advantages. We are already looking forward to meeting you in September in Hannover!

“Producing more intelligently” ...

... is when we capitalize on synergy effects and location advantages. Here in Germany, these are primarily our intact value chains and innovation networks.
Dr. Thomas Lindner, VDMA

Those who improve on intelligent production have global production networks that are close to their customers, can flexibly react to market changes, and use every single lever and never lose a day further in boosting efficiency.
Andreas Renschler, Daimler AG

... means delighting customers and staying ahead of the competition.
Dr. Werner Struth, Robert Bosch GmbH

... means the integration of product development and production processes – essentially enabled by one common, consistent data base. Consequently, the virtual and the real production worlds will increasingly merge, because product development and product planning will increasingly be running parallel.
Prof. Siegfried Russwurm, Siemens AG

... comprises smart design, standardization units, production management with sophisticated IT-tools, well educated assembly engineers with craftsmanship, good balance of exchange rate and logistic cost related to the location of site.
Dr. Masahiko Mori, Mori Seiki Co. Ltd.

... means a comprehensive analysis of production systems to develop and manufacture products that fulfill local requirements.
Dr. Bernhard E. Haas, Deere & Company

... is about recognizing many organizations are trying to overcome similar technical challenges. Joining forces to solve these problems more efficiently drives productivity and innovation.
Peter Hoffman, The Boeing Company

... means deploying a highly skilled workforce that applies the most sophisticated automation and production technologies and equipment to create the highest value in the manufacturing process.
Stephen Ezell, The Information Technology & Innovation Foundation

Program Opening Day, 16th September 2013

from 14:00 **Registration**

14:45 **Welcome**
Chairman: **Martin Wocher**
(Handelsblatt)

15:00 **Success factors value chains and innovation networks**
Established and innovative networks between companies in different sectors and research institutes along with intact value chains are the backbone of intelligent production.
Dr. Thomas Lindner, President, Verband Deutscher Maschinen- und Anlagenbau (VDMA) – German Engineering Federation

15:30 **Global, flexible, efficient.**
Producing more intelligently in the automobile industry.
Andreas Renschler, Member of the Board of Management of Daimler AG Manufacturing and Procurement Mercedes-Benz Cars & Mercedes-Benz Vans

16:00 **Intelligent production: a holistic approach to the production lifecycle**
Integrated technology management is vital for the value added of the industrial process. It enables the synchronous, partially anticipated development of the function and production of innovative products.
Dr. Werner Struth, Member of the Board of Management, Robert Bosch GmbH

16:30 **Machine tool company 2020**
Technology and innovation, business systems and IT, people training, education and motivation drive the business.
Dr. Masahiko Mori, President, Mori Seiki Co. Ltd

17:00 **Production systems for global, highly differentiated markets in agricultural technology**
How individualized products that fulfill local requirements can be manufactured viably using the most standardized and efficient production systems possible.
Dr. Bernhard E. Haas, Senior Vice President Global Platform Tractor, Deere & Company

17:30 **Driving Innovation through global technology collaboration**
To remain competitive a changing marketplace, forward looking organizations are building global technology networks that allow collaboration, co-investment and intellectual property sharing.
Peter Hoffman, Vice President Intellectual Property Management, The Boeing Company

18:30 – 21:00 **Social Program**
International Reception as part of the EMO

Program 2nd Congress day, 17th September 2013

9:30 **Welcome**
Chairman: **Ken Fouhy**
(Vogel Business Media)

9:45 **Industry 4.0 – More efficiency in production due to more intelligence**
How product development and production planning are increasingly running parallel and the virtual and real production worlds are merging.
Prof. Siegfried Russwurm, Member of the Management Board and CEO Industry Sector, Siemens AG

10:15 **America's Manufacturing Renaissance: Fact and Fiction**
While American manufacturing has rebounded modestly, it still has a ways to recover from the significant output and employment losses of the 2000s and the adverse policy environment it continues to confront.
Stephen Ezell, Senior Analyst, The Information Technology & Innovation Foundation

11:15 **Parallele Sessions**

2nd Congress Day, 17th September 2013
Parallele Sessions

The topics

Excellence
Lean Production and flexible supply chains
Driven by the internationalization of target markets and pressure for technological innovation, development cycles in many industries are growing increasingly shorter. For production and assembly, this means that a new product program must be introduced into production rapidly. Flexible assembly lines with standardized workbenches enable new developments to be implemented quickly. In companies with short product lifecycles, it is essential to practice a continuous improvement process (CIP). This is the only way to ensure that new products are produced efficiently in the short term too.

Efficiency
Sustainable and resource-efficient production
Sparing resources, saving energy and thinking in terms of integral lifecycles – these aspects characterize sustainable production. Less wear, a longer lifecycle, more functions and resource-efficient usage for products on the application side, along with resource-efficient production processes on the manufacturing side – these are the requirements that manufacturing companies face. Lightweight design, functional surfaces, efficient production machines or modern energy management systems all constitute starting points for implementing resource efficiency along the entire value chain.

Intelligence
Smart Factories driven by Industrie 4.0
The entire process of production logistics is undergoing a transformation. Intelligent machines and products, warehousing systems and production equipment are being systematically dovetailed using ITC – along the entire value chain, from logistics through production and marketing right up to service. Whereas machines used to be dedicated to selected work stages, they will be able to react fast to changing requirements in future, thanks to IT. This will enable manufacturers to react promptly to individual, customer-specific wishes. Even producing individual items and tiny batches may be viable in future.

Program 2nd Congress Day, 17th September 2013

Excellence Session
Lean Production and flexible supply chains

Chairman: **Dr. Markus Lutz** (VDMA)

11:15 **Lean supply chain - simple, fast and sustainable**
A well-established culture of change is a prerequisite for an uncompromising process organization and a sustainable change by disruptive process innovation.
Jörg Cwojdzinski, Vice President Supply Chain Management, ASM Assembly Systems GmbH & Co. KG

11:45 **Transformation capability and standardization are not a contradiction**
By standardizing the production process, greater flexibility can be achieved and the effects of order fluctuations can be taken into account in medium-term scenarios.
Wolfgang Sochor, Chief Operating Officer at HAWE Hydraulik SE

12:15 **Excellence through high vertical integration**
A high level of vertical integration allows companies to extend their competitive edge and thus lay the foundation for successful lean management.
Hans-Joachim Boekstegers, Speaker of the Board of Management at MULTIVAC Sepp Haggenmüller GmbH & Co. KG

12:45 **Beyond the checkered flag**
How to combine speed, complexity and cost efficiency through intelligent manufacturing.
Dr. Roberto Vavassori, Business Development Director & Marketing, BREMBO S.p.A.

13:15 **Lunch buffet**

from 14:00 **Guided theme walks**

"Producing more intelligently" ...

... means the human being is at the center of intelligent production. If we don't just treat this statement as an empty platitude, but implement it seriously, we can gain an effective competitive differentiator in global competition.
Jörg Cwojdzinski, ASM Assembly Systems GmbH & Co. KG

... means a value chain that is based on standards, that interlinks resource-saving production technology with people's talents, abilities and expertise.
Wolfgang Sochor, HAWE Hydraulik SE

... means using insourcing to secure a competitive advantage. Thus the growth in internal expertise in particular is mirrored faster in new product innovations.
Hans-Joachim Boekstegers, MULTIVAC Sepp Haggenmüller GmbH & Co. KG

... means the ability to combine the manufacturing of relatively small batches of many different part numbers with the cost efficiency requested by our exacting premium customers all over the world.
Dr. Roberto Vavassori, BREMBO S.p.A.

“Producing more intelligently” ...

... implies achieving better results with fewer resources.
Prof. Konrad Wegener, ETH Zürich

... is primarily about avoiding waste of materials and resources. Optimizing set-up and programming time and effort, as well as the ability to merge several process steps into one using multi-technology applications, are effective measures.
Fred W. Gaegauf, Fritz Studer AG

When it comes to trends we must be perceptive and forward thinking and utilize new materials and technology in effective productivity solutions combined with unique competence.
Klas Forsström, Camilla Engbrink, AB Sandvik Coromant

Taking an integrated approach to the production process; that means, aside from quality, process and production engineering parameters, also keeping resource efficiency in mind at an early stage and with equal weighting.
Andreas Korn, Audi AG

Program 2nd Congress Day, 17th September 2013

Efficiency Session
Sustainable and resource-efficient production

Chairpersons: **Naemi Denz** (VDMA), **Dr. Alexander Broos** (VDW)

11:15 **Global challenges and technological solutions**
System optimization will enable the machine tools of the future to achieve more value added with fewer resources.
Prof. Konrad Wegener, Head of the Institute of Machine Tools and Manufacturing at the Swiss Federal Institute of Technology (ETH) Zurich

11:45 **The resource-efficient finishing tool strategy**
Smart production starts with examining and analyzing the machining process chain – resource efficiency refers to more than just saving energy.
Fred W. Gaegauf, CEO, Fritz Studer AG

12:15 **The age of hyperspecialization**
How do we attract tomorrow’s brilliant minds and ensure we sharpen the competitive edge of manufacturing?
Klas Forsström, President; **Camilla Engbrink,** Vice President, Product Management, AB Sandvik Coromant

12:45 **Resource efficiency in car manufacturing body construction**
How the responsible use of resources in production planning is achieved and thereby a principle within the company strategy is implemented in practice.
Andreas Korn, Planning Automation Technology; Resource Management Production, Audi AG

13:15 **Lunch buffet**

from 14:00 **Guided theme walks**

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Program 2nd Congress Day, 17th September 2013

Intelligence Session
Smart Factories driven by Industry 4.0

Chairman: **Rainer Glatz** (VDMA)

11:15 **Smart factories pave the way to the Fourth Industrial Revolution**
Production technology is currently undergoing radical change, as intelligent products require more intelligent and flexible production plants.
Prof. Detlef Zuehlke, Scientific Director, German Research Center for Artificial Intelligence, DFKI GmbH

11:45 **Automation technology provides impetus for Industry 4.0**
High-performance automation opens up new perspectives in production technology.
Gerd Hoppe, Corporate Management, Beckhoff Automation GmbH

12:15 **Adaptive systems for intelligent production**
The factories of the future will be able to implement networked and flexible production with the aid of self-learning and knowledge-based automation components and systems.
Prof. Peter Post, Head of Research and Program Strategy, Festo AG & Co. KG

12:45 **Intelligent tools for high process reliability**
The use of mechatronics enables the process limits of the forming process for deep-drawing tools to be stretched further while at the same time improving the robustness of the process.
Dr. Martin Wahl, Head of the Innovation and Digital Toolmaking Division, Audi AG

13:15 **Lunch buffet**

from 14:00 **Guided theme walks**

"Producing more intelligently" ...

... more agile markets call for more agile factory systems; the smart technologies that are transforming our daily lives will also bring about fundamental changes in production technology.
Prof. Detlef Zuehlke, German Center for Artificial Intelligence, DFKI GmbH

... means producing more flexibly in a way that saves more resources and energy, so that products can be manufactured in a shorter time with higher precision and lower materials usage.
Gerd Hoppe, Beckhoff Automation GmbH

... In the intelligent factory of the future, autonomous, self-learning and knowledge-based automation components and systems will be able to fulfill requirements with respect to networking, flexibility and adaptivity.
Prof. Peter Post, Festo AG & Co. KG

... means reducing the complexity of production processes while at the same time increasing cost-effectiveness.
Dr. Martin Wahl, Audi AG

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MM MaschinenMarkt is a weekly industry magazine full of up-to-date information on the entire manufacturing sector. Sections on “Production”, “Automation” and “Design” report on technical trends and highlight new and improved products and their applications in the manufacturing process. Business news and reports from the management and IT world supplement the coverage of technical topics. maschinenmarkt.de is an online source of concise information on the range of topics which are covered in MM MaschinenMarkt and which help stimulate demand.
www.maschinenmarkt.de

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The Organization at a glance

Dates

1st Congress Day, 16th September 2013

14:00	Registration
15:00 – 18:00	Plenary presentations
18:30 – 21:00	International Reception as part of the EMO

2nd Congress Day, 17th September 2013

9:30 – 10:45	Plenary presentations
11:15 – 13:15	Parallel Sessions
from 14:00	Guided theme walks

Location

EMO, Hannover Exhibition Grounds **www.emo-hannover.de**. Under the category Travel & Accommodation you will find more information about directions and special conditions of Deutsche Bahn and Lufthansa.

Accommodation

Numerous hotels can be found on the online booking portal of Hannover Marketing & Tourismus GmbH.

Phone +49 511 12345-555
E-Mail hotels@hannover-tourismus.de
Internet www.visit-hannover.com

Conference Language

German and English – simultaneous translation will be provided.

Social Program

All participants are invited to the International Reception on 16th September 2013. The program starts at 18:30.

Participant Fee

The participant fee is 390 Euro plus value-added tax. It covers the participation in the congress, the social program and the guided theme walks. Furthermore, a ticket for the EMO is included.

Registration

online at **www.vdma.org/ip**

Contact

Nadine Rüth
Maschinenbau-Institut GmbH
Lyoner Strasse 18
60528 Frankfurt am Main
Phone +49 69 6603-1266
E-Mail nadine.rueth@vdma.org