International VDI Conference

Additive Manufacturing

April 25 – 26, 2018, Amsterdam, The Netherlands

- AM Markets and Challenges of Technology Implementation
- AM in the Context of Industrialization and Digitalization
- How AM is changing Process-, Supply- and Value-Chains
- How AM is transforming Business Models
- Economic, legal and social Aspects of AM
- Innovative Business Cases

+ Panel Discussion
+ Workshop “The Additive Manufacturing Landscape”
+ Visit of the MX3D Facility

Meet international experts from:

3D SYSTEMS, 3YOURMIND, AM Ventures, beamler, cecimo, EOS, Deloitte, dwf, Fraunhofer, HP, Mark3D Print Stronger, mtc, Renishaw, Siemens, SLM Solutions, stratasys, TÜV, UPS, Volkswagen

An event organized by VDI Wissensforum GmbH
www.vdi-international.com/additivemanufacturing
Expected Participants according to Functions

Meet international Experts from different Industries, united by a common technology
Discuss AM in the context of Industrialization, Digitalization and Globalization
Get informed about Chances and Challenges of the Implementation of AM
Learn about the impact of AM on Business Models and Process Chains
Benefit from the parallel Event on Simulation in Automotive Lightweight Engineering
Prepare for a Change of Paradigm for future Vehicle Development

Expected Participants according to Industries

The Association of German Engineers (VDI) is one of the largest technical-scientific associations in Europe. Throughout the years, the VDI has successfully expanded its activities nationally and internationally to foster and impart knowledge about technology-related issues. As a financially independent, politically unaffiliated and non-profit organization the VDI is recognized as the key representative of engineers both within the profession and in public.
II. Status Quo & Future Road: AM affecting Business & Markets

14:20 AM – Market Development and Challenges of Technology Implementation
- Growth rate analysis for the AM market
- Market analysis with a focus on metal AM
- Challenges of technology implementation

Dr.-Ing. Christian Seidel, Head of Department, Fraunhofer IGCV and Management Consultant, GoAdditive Management Consulting, Germany

14:50 The Roadmap to high-end AM
- Key success factors for AM excellence
- Implementing quality monitoring solutions
- Introducing certification programs to get ready for high-end manufacturing solutions

Dipl.-Ing. (FH) Gregor Reischle, Program Manager Additive Manufacturing, TÜV SÜD Product Service GmbH, Germany

15:20 Selective Laser Melting Technology on the Way to Mainstream Manufacturing, what it can do and where the Limits are
- Description of SLM technology, parameters and performance
- How does integration into the whole production process of metal parts work today already
- Applications and case studies for the main industry areas
- Future development of the technology and outlook

Dipl.-Ing. Stefan Ritt, VP Global Marketing and Communications, SLM Solutions Group AG, Germany

15:50 Networking & coffee break

16:20 Blueprint for Innovation: How AM is transforming Business Models
- The current sentiment on the potential impact of AM
- How should companies approach the benefits of AM?
- How to easily segment the business benefits of AM and apply to different parts of your enterprise

Andreas Langfeld, M.A., VP Sales and EMEA, Stratasys GmbH, Germany
16:50  Let’s talk inside AM – Opportunities, Challenges and Requirements to successfully leverage AM

Moderator:
Prof. Dr.-Ing. Jan T. Sehrt, Hybrid Additive Manufacturing, Machine Engineering Department, Ruhr-University Bochum

Panelists:
Andreas Langfeld, VP Sales and EMEA, Stratasys Gmbh
Dr. Vladimir Navrotsky, Chief Technology Officer, Siemens Industrial Turbomachinery AB
Willem-Jan van Loon, Founder, Beamler
Gero Corman, M.Sc., Head of Additive Manufacturing, Volkswagen Group

17:50  End of conference day one

Get-together
At the end of the first conference day we kindly invite you to use the relaxed and informal atmosphere for in-depth conversations with other participants and speakers.

III. Is AM ready for Production? Industrialization, Digitalization and Adapted Process Chains

08:30  Opportunities and Risks in the Adoption of AM
• Overview of the opportunities in AM and what deters adoption
• Finding the value in AM and reducing risk, by design
• Getting real: Using AM in production
• Future trends in exploiting AM

Andrew Triantaphyllou, Principal Research Engineer, Manufacturing Technology Centre, UK

09:00  Industrial 3D Printing – The Future is digital, the Future is integrated
• Industrial 3D printing solutions will be integrated – physically and digitally – into smart shop floors
• Automated, seamless data and part flow is a prerequisite for the factory of the future
• Built of AM know how is the biggest hurdle for deployment of industrial 3D printing

Thomas Weitlaner, Director Business Development & Sales Management, EOS GmbH, Germany

09:30  AM is not an Island – Adapting the Process Chain for AM
• Drivers for industrialization of AM
• AM process chain

Marc Saunders, M.Eng., Director – Global Solutions Centers, Renishaw plc., UK

10:00  Shaping a new Industry Value Chain with AM
• AM within the overall production value chain
• Striking common principles of traditional manufacturing
• Use-case: How to integrate AM in organizations
• Use-case: How to accelerate AM potential
• Leveraging human creativity

Alexandre Donnadieu, Business Development Manager, 3YOURMIND, France

10:30  Networking & coffee break

IV. Economic, legal & social Aspects of AM

11:00  Value Chain Redesign for Advanced Manufacturing – A strategic Investors' Perspective
• The mission of turning advanced manufacturing into reality
• How to find and select strategic investments for advanced manufacturing
• Co-operation with a world market leader in industrial 3D printing – The investor as intermediary
• Strategic investment management – Much more than finance
• Success stories and examples

Dr. Thomas Holzmann, Technology and Investment Management, AM Ventures Holding GmbH, Germany

11:30  The AM Ecosystem in Europe
• Outstanding policy issues in the fields skills and standards' development
• Fragmentation of the AM value chain in Europe
• Industry R&D attention towards in-situ process monitoring
• Integration of AM into the factory
• Supportive policy and research measures at European level

Filip Geerts, Director General, CECIMO, European Association of the Machine Tool Industries, Belgium

12:00  Reinvented Manufacturing and economic Efficiency with AM
• Uniquely strong materials development
• Continuous fiber for strength
• AM – Economic efficiency
• In-process inspection
• ADAM: Atomic Diffusion Additive Manufacturing is an all new way to build metal parts

Allan van De Laak, Sales Manager, Mark3D Benelux BV, The Netherlands
12:30  Legal Challenges in AM
• Protection of intellectual property rights and licensing
• Product safety and reduction of product liability risks
• Legal issues and risks along the supply chain
• Technical regulations and international standardization
Anne-Sylvie Vassenaix-Paxton, Partner and Head of Oil & Gas Sector, DWF, France

13:00  Lunch

14:00  The Upskilled Technician: Digital Transformations and the Future of Work in Additive Manufacturing
• Elevating the role of the human through smarter and more timely workforce development
• Data-driven decision-making through Digital DNA Diagnostics and Agile Workforce Planning
• Five steps to better identify your key capability requirements and better manage organizational change
Eric Vazquez, PMP, Specialist Leader, Deloitte Consulting LLP, USA

14:30  Thinking outside of the Metal Box - The Manufacturing Story
• Direct metal printing industry solutions
• Future of direct metal printing as well as state-of-the-art technologies
• Wide range of applications
Dr.-Ing. Jonas Van Vaerenbergh, Chief Engineer Direct Metal Printing, 3D Systems, Belgium

15:00  AM helps improve Competitiveness
• AM enables new ways of production
• Digital manufacturing and company efficiency
• Examples of applications that take advantage of HP’s multi jet fusion
Maryam Qureshi, BEng., HP Printing and Computing Solutions, S.L.U., Spain

15:30  Launched by Disruption: On Demand Manufacturing at UPS
• Disruption can be channeled into positive momentum
• Investing in specific start-ups to keep with the pulse of business
• Distributed manufacturing as a threat and an opportunity for UPS
• Integration of the AM company Fast Radius into the global logistics network
• 3 key areas: Service/critical parts, customized products and on-demand solutions
Agnes Hanselaar-Blom, Segment Marketing Supervisor IM&A, UPS Marketing, The Netherlands

16:00  Conference Chair’s closing Remarks
16:15  End of conference
The Additive Manufacturing Landscape

**Workshop Chair:**
Giorgio Magistrelli, International Advisor – Project Director Additive Manufacturing, Belgium

**Date and Venue:**
April 24, 2018
Novotel Amsterdam Schiphol Airport

**Time:**
09:00 – 16:00

**CONTENT**
This workshop provides an overview on the present Additive Manufacturing Landscape, focusing on the general trend of different AM techniques, evaluating key sectorial applications and the worldwide developments in geographical and industrial terms, as well as analysing standards and regulations. End-users applications as well as the future potentials will be presented, offering the participants an overview on the opportunities represented by European and national sources of funding for innovative AM, also providing a large number of examples and inspirational potential developments. Attendees will be invited to actively contribute to the discussion and hand in their specific questions beforehand, so these can be discussed at the workshop.

**Introduction – Background and current Trends**
- Past and most recent history of AM
- Worldwide general analysis (geographical and sectorial)
- Main worldwide companies: AM systems technical analysis, industrial and corporate trends
- National centres of excellence (Europe, Asia, USA)
- Bodies of standardization and certification and their importance

**Breakout Sessions and Sectoral analysis**
- Automotive
- Aerospace
- Defence
- Medical and Dental
- Oil & Gas
- Tooling
- Consumer Goods

**Sources of Project funding**
- European Commission funded projects: cases, examples
- H2020 calls and funding

**Discussion and Conclusion**
- Main findings of the workshop day
- Outlook into the future of AM

Digital Twin

**Workshop Chair:**
Sascha Leidig, Head of Global Competence Center PLM, T-Systems International GmbH, Germany
Christian Völl, Management Consultant, Detecon International GmbH, Germany

**Date and Venue:**
April 24, 2018
Novotel Amsterdam Schiphol Airport

**Time:**
09:00 – 16:00

**CONTENT**
The digital twin offers companies great chances for better products and new business models. It is a 1:1 digital data representation of a physical product or process over its whole lifecycle. The roots of this concept rely on the Internet of Things which enables to collect realtime data from products. The digital twin will be synchronized with sensor information from the corresponding physical twin. Based on these insights, for example from predictive analytics, improvements in product development, production and service can be realized. This workshop provides an overview of the concept for the digital twin and its practical relevance especially for product engineering and simulation. Practical use cases show the opportunities of the digital twin in an exemplary manner. Product engineers are able to learn from the product use in the field. It is possible to gather information about performance issues or if a product is used in a different way than expected.

The main part of the workshop consists of breakout sessions in which important topics will be elaborated followed by moderated discussions. Participants are invited to actively contribute during the breakouts.

**Introduction**
- The idea behind the digital twin
- Demonstration of use cases

**Breakout Sessions – Planned topics include:**
- Further identification of use cases
- Impediments of identified use cases
- Introduction of a digital twin to a company

**Discussion and Conclusion**
- Main findings of the workshop day
- Outlook into the future of digital twins

(Please note that the number of participants is limited. Registrations and individual parts and segments of the workshop are subject to confirmation)
Exhibition / Sponsoring

If you want to meet with and reach out to the first-rate experts attending this VDI conference and to powerfully present your products and services to the well-informed community of conference participants, please contact:

Sandra Klack
Project Consultant
Exhibitions & Sponsoring
Phone: +49 211 6214-188
Fax: +49 211 6214-97188
Email: klack@vdi.de

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Registrations: Registrations for conference attendance must be made in writing. Confirmation of your registration and the associated invoice will be mailed to you. Please do not pay your conference attendance fee until you have received our invoice and its invoice number to be stated for transfer. Dutch VAT directives apply. Please state your VAT-ID with your registration.

Conference venue
Novotel Amsterdam Schiphol Airport
Taurusavenue 12
2132 LS Hoofddorp, The Netherlands
Phone: +31 207219180
Email: H7060@accor.com
Website: http://www.novotel.com/de/hotel-7060-novotel-amsterdam-schiphol-airport/index.shtml

Hotel room reservation: A limited number of rooms has been reserved for the benefit of the conference participants at the Novotel Amsterdam Schiphol Airport, Phone: +31 207219180, Email: H7060@accor.com. Please refer to “VDI Conference”. For more hotels: www.vdi-wissensforum.de/hrs

VDI Wissensforum service package: The conference package includes the conference documents (online), beverages during breaks, lunch and the get together on April 25, 2018.

Conference attendance conditions and terms: By way of your registration you accept the conference attendance conditions and terms of VDI Wissensforum GmbH as binding. Any cancellation of your registration must be made in writing. We will charge you only an administrative fee of € 50.00 plus Dutch VAT if you cancel your registration earlier than 14 days ahead of the conference date. Any cancellation that reaches us after this deadline will entail the conference attendance fee as stated in our invoice to be charged in full. The date of the post office stamp of your written cancellation will be the decisive criterion. In that case, we will gladly mail you the conference documents on request. Subject to agreement, you may name a substitute participant. Individual parts and sections of conferences and seminars cannot be booked. You will be informed without delay if an event has to be cancelled for unforeseeable reasons. In that instance, you will be entitled only to a refund of your conference attendance fee if already paid. We reserve the right to exchange speakers and/or change the program sequence in exceptional cases. In any case, the liability of VDI Wissensforum GmbH is restricted exclusively to the conference attendance fee.

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Please submit your topic to:
Leonie Bohnstedt
Product Manager
International Business Development
Phone: +49 211 6214-461
Email: bohnstedt@vdi.de
Yes, I will participate as follows:

- **Participation Fee + VAT**
  - □ VDI Conference 25.–26.04.2018 (02KO906018) € 1,590
  - □ Workshop 24.04.2018 (02ST911001) € 850
  - □ Workshop 24.04.2018 (01ST915001) € 850
  - □ Package Price (conference + 1 workshop) € 2,190


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