



3rd European Military Additive Manufacturing Symposium

8th and 9th April 2025 | Maritim Hotel Bonn | Germany



Program

Conditions of Participation,
Visitor & Exhibitor Registration

Supported by:



The Conference at a glance

Did you know, that Additive Manufacturing (AM) is a production method, that allows

- ◆ the greatest freedom in design even of complex structures, to manufacture complex parts and systems
- ◆ to produce stronger structures with less weight,
- ◆ to (re)generate spare parts with almost no setup costs and in the field?

These are only some of the eye-catching opportunities and advantages AM provides - in a well proven and certified manner.

This is probably the reason why AM has been considered a a serious manufacturing technology in industry already for some time. High performance structures exposed to great stress have already found their way from prototyping into the production line of serial parts! Applications in automotive, aeronautics, medical equipment and even constructions: The list of examples is endless.

From a military perspective, AM technologies can provide operational advantages: reducing the logistical footprint, obsolescence management, and many more.

It is the intention of the 3rd European Military Additive Manufacturing Symposium to address military requirements and challenges, while hearing perspectives from

Original Equipment Manufacturers (OEM), AM Machine producers and service providers as well as researchers / academia. The aim of the Symposium is to generate a common understanding on benefits and limitations of AM and to foster sustainable cooperation among stakeholders to materialise the benefits for military applications.

In this light, **this third edition is explicitly addressed to Armed Forces and their planning / procurement departments but also to the AM machine manufacturers and defense OEMs.**

The German Association for Defence Technology - Centre for Studies and Conferences will organise the **3rd European Military Additive Manufacturing (AM) Symposium** on 8th and 9th April 2025 in Bonn, Germany to discuss the military perspective of AM. This symposium is once again supported by the European Defence Agency (EDA).

Join us!

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Please note: this is a meeting for EU / NATO member states.

The conference is limited to participants and enterprises from / located in EU Member States and NATO countries. Exception for countries sharing same values and objectives only with individual permission by the organizers.

Our Program on April 08, 2025

08:00 [Conference Office & Exhibition opens](#)
[Good-Morning-Coffee in the exhibition hall](#)

09:00 **Welcome / opening-remark from the Conference-Chair**
Colonel (ret.) Bernd Kögel, Managing Director
German Association for Defence Technology, Centre for Studies & Conferences

09:05 **Keynote European Defence Agency**
Major General André Denk, Deputy Chief Executive
European Defence Agency

09:25 **Keynote Armed Forces**
Major General Dr. Eng. Rafael Gómez Blanco, Director de Ingeniería e
Infraestructuras del MALOG (Logistic Support Command),
Spanish Air and Space Force

09:45 **How Additive Manufacturing helps us to defend the Ukraine**
Brigadier General Andrii Sliusar, Deputy Chief of Armaments,
Logistics Forces Command of the Armed Forces of Ukraine

10:05 **Keynote Industry I (Food-for-Thought from the AM-Industry)**
James Nudo, Vice President, DMG MORI Co. Ltd. Europe

10:25 **Keynote Industry II (Food-for Thought from a Military OEM)**
Dr.-Ing. Axel Scheibel, CTO, KNDS Deutschland

10:45 [Coffee-Break in the exhibition hall](#)

11:20 **The Keynote-Speakers on Stage (moderated dialog)**

12:05 **Additive Manufacturing in the Portuguese Navy - A Case Study**
Varela Simões, Portuguese Navy Base Naval de Lisboa, Portugal

12:25 **Refining Agile Implementation of Additive Manufacturing:
Lessons Learned and the Way Forward**
Major Alexander Rode, Bundeswehr Planning Office

12:45 [Lunch-Break in the exhibition hall](#)

14:00 Elevator pitches regarding the following Poster-Sessions

14:30 14 Speakers Corners (Poster Sessions) For Details see page 5.

15:45 [Coffee-Break in the exhibition hall](#)

16:30 Parallel Sessions A1 - C1 (Details see page 6)

18:00 [Beer Call in the exhibition hall](#)

18:30 [Walking Dinner in the exhibition hall](#)

21:30 Last Call

22:00 End of Day 1



Our Program on April 09, 2025

08:00 Conference Office & Exhibition opens
Good-Morning-Coffee in the exhibition hall

08:30 **Additive Manufacturing in the Military Domain - way ahead**
Martin Huber, PO Logistics & Additive Manufacturing, EDA

08:50 Way to the following sessions

09:00 Parallel sessions A2 - C2 (Details see page 7)

10:30 Coffee-Break in the exhibition hall

11:15 Parallel sessions A3 - C3 (Details see page 8)

12:45 Lunch-Break in the exhibition hall

14:00 Parallel sessions A4 - C4 (Details see page 9)

15:30 Return to the Main-Conference-Hall (“Saal Beethoven”)

15:35 Summary / Farewell *by Martin Huber (EDA) & Bernd Kögel (SGW)*

15:50 End of conference



Speakers Corners (Poster Sessions) on April 08, 2025

- | | |
|--|---|
| <p>Poster 1: Development of large scale metal AM machines in China and consequences for the Western alliances
<i>Stefan Ritt</i>, AM/3D printing market integration + printing concepts, Germany</p> | <p>Poster 9: Laser Powder Bed Fusion for Efficient Copper-Nickel Casting Replacement in Naval Applications
<i>Dr. Pierre Van Cauwenbergh</i>, 3D Systems, Belgium</p> |
| <p>Poster 2: Additive Manufacturing: ready for High Performance Defence
<i>Christoph Hauck</i>, toolcraft AG, Germany</p> | <p>Poster 10: Additive Manufacturing of safety-relevant components using the example of pressure equipment in accordance with the PED
<i>Philipp Schwarz</i>, Rosswag, Germany</p> |
| <p>Poster 3: Printer experimentation for Navy MRO
<i>Marine Moustrous</i>, DGA - Aerospace Systems, France</p> | <p>Poster 11: High quality pellet printing for large scale polymer parts
<i>Lukas Groß</i>, Liqtra, Germany</p> |
| <p>Poster 4: Light additive manufacturing unit - Requirements, advantages and challenges
<i>Maximilian Krönert</i>, Bundeswehr Research Institute for Materials, Fuels and Lubricants (WIWeB), Germany</p> | <p>Poster 12: Simulating manufacturing workflows of DED technologies applied for aerospace and defense Industries
<i>Abel Ramos</i>, Ansys, Spain</p> |
| <p>Poster 5: DED problems and their solutions for metal printing
<i>Michael Eberhard</i>, Fronius International, Germany</p> | <p>Poster 13: Getting L-PBF based Heavy Metals Ready for Defense Applications
<i>Markus Linnenberg</i>, Fraunhofer Institute for High-Speed Dynamics, Germany</p> |
| <p>Poster 6: Validating Distortion Predictions in Large-Scale Directed Energy Deposition Components Using Advanced Simulation Techniques
<i>Dr. Enrique Escobar de Obaldia</i>, Ansys, Germany</p> | <p>Poster 14: Printing electric conductive PA
<i>Felix Wendt</i>, Fiberthree, Germany</p> |
| <p>Poster 7: Aluminium Scandium powder alloy development for Defense application
<i>Dr. Hans-Wolfgang Seeliger</i>, Gränges Powder Metallurgy, Germany</p> | <p>Poster 15: Additive manufacturing of RF absorbing materials - from EMC to defense dedicated applications
<i>Camille Crouzet</i>, HYMAG'IN, France</p> |
| <p>Poster 8: Metal Additive Manufacturing in Armed Forces: Capabilities, Applications, and Strategic Integration
<i>Till Tetzlaff</i>, Bundeswehr Research Institute for Materials, Fuels and Lubricants (WIWeB), Germany</p> | |





Sessions A1 - C1 on April 08, 2025

Session A1

Military meets AM

Military use cases and operational considerations

Moderation: Martin Huber, EDA

16:30 **Advanced Manufacturing in NATO: AM Use Cases and Technology adoptions at NSPA**

Joeren Brauer

NATO Support and Procurement Agency

16:45 **German Navy Navigating the future: Use Cases, Lessons learned, international standards**

Lieutenant (GE Navy) Dr. Sascha Hartig

German Navy Support Command

17:00 **Establishing Standardised Technical Data Packs (TDPs) for Efficient and Effective 3D Printing in the British Army**

Major Richard Cummings

British Army Army Headquarters, United Kingdom

17:15 **Additive Manufacturing for Logistic Support (AMLS) - An Overview**

Dr. Felix Zimmer

Bundeswehr Research Institute for Materials, Fuels and Lubricants (WIWeB), Germany

17:30 Discussion / Q&A

18:00 [Beer Call in the exhibition hall](#)

Session B1

AM Technology

Selected aspects I

Moderation: Tobias Kruemberg, DMFG Solutions

16:30 **To heat treat or not to heat treat?**

Prof. Eric Jäggle

Bundeswehr University Munich, Germany

16:45 **ColdMetalFusion – Achieving Smooth Surfaces efficiently with Green Part Processing**

Christian Staudigel

Headmade Materials, Germany

17:00 **In-house powder production for additive manufacturing using ultrasonic atomization**

Jakub Ciftci

AMAZEMET, Poland

17:15 **Development of a high-strength wire material for WAAM applications**

Tom Hahn

Nordmetall, Germany

17:30 Discussion / Q&A

18:00 [Beer Call in the exhibition hall](#)

Session C1

Legal, quality and regulatory considerations

Moderation: Stefan Ritt,

AM/3D-Druck Konzepte & Marktintegration

16:30 **Legal guardrails for Military Additive Manufacturing and how to comply with them**

Dr. Andreas Leupold

Leupold Legal Germany

16:45 **The idea of a mobile laboratory for quality assurance in a deployable AM micro-plant**

Dr. Tadeusz Gorewoda

Łukasiewicz Research Network - Institute of Non-Ferrous Metals, Poland

17:00 **Scaling Decentralized Additive Manufacturing in Operational Environments**

Véronique Zijlstra

Fieldmade, Norway

17:15 **Risk-Based and Deployability Scenario-Oriented Qualification of AM Parts**

André Nettermann

Qualified AM, Germany

17:30 Discussion / Q&A

18:00 [Beer Call in the exhibition hall](#)





Sessions A2 - C2 on April 09, 2025

Session A2

AM meets Military I

Considerations from research & Industry perspectives

Moderation: Frederic Creusen, MoD Netherlands, Commando Materieel en IT (COMMIT)

- 09:00 **Advanced Manufacturing in the German Air Force**
Captain Benjamin Wolf
Bundeswehr System Centre 23, Germany
- 09:15 **A decision-support model for the implementation of additive manufacturing in a military context**
Lieutenant Colonel PhD Luís Quinto
Military Academy of Portugal
- 09:30 **An example for Defence Innovation with AM: Why the Suppressor Industry is Shifting to Additive Manufacturing - Enabling the Next Generation of Suppressors**
Michael Wohlfart
EOS Electro Optical Systems, Germany
- 09:45 **Deployable aluminium additive manufacturing for in-situ manufacturing**
Dr. Jonas Galle
ValCUN, Belgium
- 10:00 Discussion / Q&A
- 10:30 [Coffee break in the exhibition hall](#)

Session B2

AM Technology

Selected aspects II

Moderation: Dr. Paula Queipo, IDONIAL Technology Centre

- 09:00 **AM Maturity across different industries**
Benjamin Haller
AM Academy, Germany
- 09:15 **Improving capability by AM**
Klaas Rozema
Titomic EU, The Netherlands
- 09:30 **Metal-Ceramic Laminates with controlled layer thicknesses prepared by Selective Powder Deposition and pressure assisted sintering**
Dr. Bram Neirinck
Schaeffler Aerosint, Belgium
- 09:45 **New ways of repairing large metal components using wire arc additive manufacturing**
Tom Lueders
B.I.G. Holding, Germany
- 10:00 Discussion / Q&A
- 10:30 [Coffee break in the exhibition hall](#)

Session C2

Sustainability and Circular Economy

Moderation: Mathieu Schwander, EDA

- 09:00 **Direct extrusion of (fiber filled) recycled polymer from former and for future structural parts**
Jan-Uwe Reinhard Schmidt
German Aerospace Center
- 09:15 **Closed material loop? LCA of PA-CF**
Felix Wendt
Fiberthree, Germany
- 09:30 **Metal composites for Additive Manufacturing to produce complex metallic components in an easy, cost effective and sustainable way for Defense sector**
Dr. Juan Naranjo
AIMPLAS, Spain
- 09:45 **Lightweight Thermal Management Solutions by Additive Manufacturing**
Felix Gemse
Günter-Köhler-Institut für Fügetechnik und Werkstoffprüfung, Germany
- 10:00 Discussion / Q&A
- 10:30 [Coffee break in the exhibition hall](#)



Sessions A3 - C3 on April 09, 2025

Session A3

AM meets Military II

*Considerations from research &
Industry perspectives*

Moderation: Georg Schöpf, x-technik IT&Medien

- 11:15 **NOVA M Mini Foundry – The Simplest Solution for Rapid Battle Damage Repair**
PHD Fernando Lasagni
Novaindef, Spain
- 11:30 **Automating 3d scanning and reverse engineering to boost on-site military metal additive for spare parts manufacturing and repair**
PhD Daniel Ferreira
Danish Technological Institute, Denmark
- 11:45 **UAV Production at the Frontlines: Advancing Hybrid Supply Chains with Distributed Additive Manufacturing**
Gino Balistreri
Hewlett Packard, Spain
- 12:00 **Supporting Ukraine with additive manufactured drones**
Anton Chernysh, BeeTA Technologies and manager at DrukArmy, Ukraine
- 12:15 Discussion / Q&A
- 12:45 [Luncheon in the exhibition hall](#)

Session B3

AM Certification, Safety- and Quality Management

Moderation: Dr. Norman Herzig, Nordmetall

- 11:15 **AM Safety Management: “How safe is Additive Manufacturing?”**
Noël Daemen
Additive Mindset, The Netherlands
- 11:30 **Digital Certification for Remote Additive Manufacturing**
Anders Hjermitsev
Danish Technological Institute, Denmark
- 11:45 **Traceability and Security in Additive Manufacturing with Advanced Marking Solutions**
Sebastian Matthes
3Faktur, Germany
- 12:00 **Handling Large L-PBF In-Process Monitoring Data Sets for Qualification**
Philip Sperling
Interspectral, Sweden
- 12:15 Discussion / Q&A
- 12:45 [Luncheon in the exhibition hall](#)

Session C3

Also to be considered:

*Supply chains, cyber security, factory planning,
cost effective cooperation*

*Moderation: Prof. Dr. Christian Seidel,
Wohlers Associates powered by ASTM*

- 11:15 **Factory planning and operational excellence for AM**
Prof. Dr. Christian Seidel
Wohlers Associates powered by ASTM, USA
- 11:30 **Cybersecurity "Chain of Trust"**
Paul Leendertse
Colibrium Additive (GE Aerospace), USA
- 11:45 **Efficient data management in additive manufacturing**
Peter Lindecke
amsight GmbH, Germany
- 12:00 **Joint procurement of additively manufactured spare parts for the defence sector**
Niccolò Maccarini
Eindhoven University of Technology, The Netherlands
- 12:15 Discussion / Q&A
- 12:45 [Luncheon in the exhibition hall](#)



Sessions A4 - C4 on April 09, 2025

Session A4

AM meets Military III

*Considerations from research &
Industry perspectives*

Moderation: Ismail Ünsal, Fraunhofer IGCV

14:00 **AVT-342 - Interoperability of additive manufacturing in NATO operations**
Dr. Tom Thorvaldsen
Norwegian Defence Research Establishment, Norway

14:15 **How the U.S. Marine Corps Select AM Part Candidates**
Aleksander Ciszek
3YOURMIND, Germany

14:30 **Advancing Military Readiness through Innovative Additive Manufacturing Materials: Enhancing Performance and Capabilities**
Joachim Kasemann
Mark3D, Germany

14:45 **Polymer AM for Defence**
Matthew Jones
Stratasys, Germany

15:00 Discussion / Q&A

15:30 [Return to the Main-Conference-Hall \("Saal Beethoven"\)](#)

Session B4

Special cases: energetic materials, printing concrete, printing antennas, applying AI

Moderation: Giuseppe Dello Stritto, Head of Unit Land and Logistics, EDA

14:00 **3D-printing of energetic materials**
Tim Nickel
Fraunhofer Institute for Chemical Technologies ICT, Germany

14:15 **New antenna systems using printable magneto-dielectric and dielectric-filled polymers**
Günther Pflug
TITK (Thüringisches Institut für Textil- und Kunststoff - Forschung e.V.), Germany

14:30 **The ballistic performance of composite walls made of 3D printed concrete**
Dr. Richard Dekker
TNO, The Netherlands

14:45 **Artificial Intelligence for first-time-right Additive Manufacturing in the defence sector: novel solutions and current perspective**
Prof. Marco Grasso
Politecnico di Milano, Italy

15:00 Discussion / Q&A

15:30 [Return to the Main-Conference-Hall \("Saal Beethoven"\)](#)

Session C4

Enhanced ballistic protection through AM

Moderation: Prof. Dr. Bernd Fischer, ISL

14:00 **AM of hard and super hard ceramics: A protections best friend**
Johannes Abel
Fraunhofer-Institut für Keramische Technologien und Systeme IKTS, Germany

14:15 **Design and optimization of nacre-inspired PEKK-TPU laminated materials via 3D printing for enhanced ballistic protection**
Davide Girauda
Luxembourg Institute of Science and Technology (LIST), Luxembourg

14:30 **Optimizing Cellular Structures and L-PBF armor steels for Blast and Ballistic Resilience**
Aron Pfaff
Fraunhofer EMI, Germany

14:45 **Shock and energy absorption of additively manufactured metamaterials**
Dr. Wessel W. Wits
NLR - Royal Netherlands Aerospace Centre, The Netherlands

15:00 Discussion / Q&A

15:30 [Return to the Main-Conference-Hall \("Saal Beethoven"\)](#)



Pricing for Visitors

The conference open for members of the armed forces, the civil service, parliaments and ministries, embassies, academia and business from EU & NATO member states. Prices for your attendance include catering:

Category A:	€ 85.00 Armed forces from EU & NATO member states, police, BKA, LKA, BND, THW, DRK, other "blue-light organisations", Ministries, offices subordinate to the ministries, parliaments, Embassies.
Category B:	€ 310.00 Research institutions, students, universities, companies affiliated with the Federal Republic of Germany (BWI, BwBM, HIL, BwFPS and BwConsulting) as well as persons who cannot be assigned to categories A, C and D.
Category C:	€ 1.190.00 Business / Industry
Category D:	€ 0.00 Press

Discounts for early bird registration (Cat B, C: 10% Early Bird until 07.02.2025), 50% for speakers from industry and research, 100% for speakers from MoD / Armed Forces will be considered in the online booking process. Discount for exhibitors: See below. Prices for participation on individual days will be displayed / taken into account in the booking process on our homepage.

Please register online: <https://veranstaltungen.dwt-sgw.de/?v=168>

The conference is open for members of the armed forces, the civil service, parliaments and ministries, academia and business.

Participants from non-NATO or non-EU countries only after prior approval by the organiser!

Only on separate invitation by EDA: Official representatives from EDA member-states are kindly asked to follow the EDA registration process.

Catering / drinks are included in the conference fees. **The prices do not include VAT.**

With your registration you agree:

1. The electronic storage of the data you provide.
2. That photos and/or film recordings may be made during the event, e.g. for reporting purposes or for publication in invitations to future DWT/SGW events.
3. The distribution of a list of participants (name / function / company or office) and the photos taken during the event to the participants.
4. With your registration/signature, you accept the conditions of participation of this invitation, the General Terms and Conditions and the Data Protection Agreement of the DWT Study Association, which can be viewed at www.dwt-sgw.de.
5. Data Protection regulation (DPR): Please send any objection you may have to bernd.koegel@dwt-sgw.de.
6. Cancellation conditions: Cancellations are free of charge for participants up to 5 working days before the conference; a replacement participant can be named at any time. Exhibitors have the option to cancel free of charge up to five weeks before the event.
7. If an event is cancelled for unforeseeable reasons, registered participants and exhibitors will be notified immediately and any participation and exhibition fees already paid will be refunded. The liability of Studiengesellschaft der DWT mbH is limited to the participation and exhibitor fees.

Accommodation

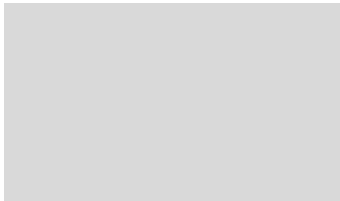
Here you can book your room in the conference hotel:

Tel.: +49 228 81080 | info.bon@maritim.de
Booking code for the conference rate: "DWT"

[List of other recommended hotels in the vicinity of the conference hotel](#)

Pricing for Exhibitors

Option A | 350,- Euro per m² Exhibition Space



Option A includes

- Stand space in the desired size
- Row / corner / island stand
- **1 full ticket per 6 m²**
- 20% discount on additional full tickets
- 50-70% discount on additional tickets without participation in the presentations ("stand service")
- Security at night

Option B | 450,- Euro per m² System Booth



Option B includes

- Option A
- Octanorm-System-Stand
- Carpet „Expo Rips“ grey
- Booth cleaning at night
- Inserts to the visitor information

Option C | 550,- Euro per m² System Booth All Inclusive



Option C includes

- Option B
- Illumination of the booth
- Frontbanner 200 x 50 cm
- Furniture (such as Chairs, Table, Sideboard, Counter, Plant, ...)
- Carpet in the colour of your choice

Option D | 650,- Euro per m² Individual Booth Concept



Option D includes

- Option C
- Individual Booth Building Concept
- Presentation technology (Display, beamer, ...)
- Graphics / Printings

Click to download latest Floor Plan



Organisation:

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