



Annual Review Meeting 2021

17/18 March 2022, Online Meeting

Advanced Manufacturing is one of the Strategic Focus Areas (SFA) in the strategic planning of the ETH Board. The SFA Advanced Manufacturing aims to enable fundamental research in engineering science in areas where missing knowledge or technical problems are hindering Swiss companies to use advanced manufacturing technologies.

Goal of the Meeting

At the Annual Review Meeting 2021, the [Steering Committee](#) of the Strategic Focus Area Advanced Manufacturing (SFA-AM) will review the progress and results of the [research projects](#) as well as the measures taken by the participating institutions of the ETH Domain to build up capacity and to establish new technology platforms in the field of advanced manufacturing.

In addition, the event aims to give the scientific and technical community in advanced manufacturing insight into the projects and activities funded by the SFA-AM. Interested representatives from academia and industry are invited to attend the meeting to get insights into the research activities of the SFA-AM and to foster the exchange and collaboration inside the advanced manufacturing community.

Registration

Participation in the Annual Review Meeting 2021 will be free of charge. However, registration is mandatory. If you would like to attend, please complete the [online registration form](#) until 08 March 2022.

Venue and Contact

The Annual Review Meeting 2021 will be held as online meeting using Zoom as meeting platform. Details how to join the Zoom meeting will be provided with the confirmation of your registration. Your contact is:

- Dr. Lena Schinkel, Empa, lena.schinkel@empa.ch, +41 58 765 6152

Program

The program of the Annual Review Meeting 2021 is divided into six blocks which are covered during two half-days. In the first five blocks, the leaders of the research projects will present the results that have been achieved since the project start in 2017, 2018 and 2021, respectively. In the sixth block, the representatives of the participating ETH institutions will present the planned or already realized measures to build up capacities and to establish new technology platforms in advanced manufacturing.

Day 1 – 17 March 2022

07:45	<i>Opening of the Zoom Meeting and the access for participants</i>
08:00	Welcome, introduction and presentation of the program
08:15	Block 1: Research Projects in the period 2017-2020 (Initial Program) <ul style="list-style-type: none">▪ Ceramic X.0 – High-precision micro-manufacturing of ceramics▪ FUORCLAM – Fundamental Understanding of Oxide Refractory Ceramics and Laser Additive Manufacturing▪ Powder Focusing – Powder Focusing for Beam Induced Laser 3D printing▪ PREAMPA – Precision Additive Manufacturing of Precious Metals Alloys
09:15	Discussions in Speakers Corners / Project Breakout-Rooms
09:30	Block 2: Research Projects in the period 2021-2024 (Continuation Program) <ul style="list-style-type: none">▪ Multi-Mat – Multi-material laser powder-bed fusion▪ ClosedLoop-LM – Ultrafast Laser Closed-loop Manufacturing using mid-IR Spectroscopy▪ SCALAR – Highly Scaled Gravure Printing▪ DiPrintProtect – Digitally Printed Temporary Protective Films for Application in the Watch Industry
10:30	Discussions in Speakers Corners / Project Breakout-Rooms
10:45	Block 3 Research Projects in the period 2017-2020 (Initial Program) <ul style="list-style-type: none">▪ FOXIP – Functional Oxides Printed on Polymers and Paper▪ CFRP-AM – Carbon Fiber Reinforced Polymers and Additive Manufacturing▪ SD4D – Sustainable Design of 4D Printed Active Systems
11:30	Discussions in Speakers Corners / Project Breakout-Rooms
11:45	End of the public part of the annual review meeting Start of the Steering Committee meeting

Day 2 – 18 March 2022

07:45	<i>Opening of the Zoom Meeting and the access for participants</i>
08:00	Welcome, introduction and presentation of the programme
08:15	Block 4: Research Projects in the period 2021-2024 (Continuation Program) <ul style="list-style-type: none">▪ AMYS – Advancing Manufacturability of Hybrid Organic-inorganic Semiconductors for Large Area Optoelectronics▪ MANUFHAPTICS – Manufacturing of Actuators Integrated in Active Exoskeletons▪ Microfluidics – Functional Integration for Rapid Realization of Microreactors and Bio-assays▪ SMARTAM – Fast Optimization of Additively Manufactured Metallic Parts with a Combination of Adaptive Feedforward Control and Numerical Simulation
09:15	Discussions in Speakers Corners / Project Breakout-Rooms
09:30	Block 5: Research Projects in the period 2018-2020 (Expansion Program) <ul style="list-style-type: none">▪ D-SENSE – Digital Manufacturing of 3D-Printed Wearable Sensors▪ MOCONT – Monitoring and Control of Additive Manufacturing Metal Process▪ Nano Assembly – Automated Process Flow for High-speed Additive Nanostructure Assembly with Integrated Process Control▪ SOL4BAT – Fabrication and diagnostics of stable solid-solid interfaces for next-generation Li-ion batteries
10:30	Discussions in Speakers Corners / Project Breakout-Rooms
10:45	Block 6: Capacity Build-up & Technology Platforms <ul style="list-style-type: none">▪ ETH Zurich▪ EPFL▪ PSI▪ Empa
11:45	End of the public part of the annual review meeting Start of the Steering Committee meeting