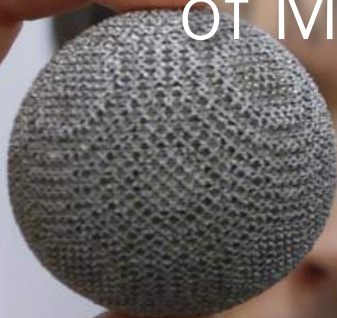


The Swedish Arena for Additive Manufacturing of Metals



2018

Aim

Additive manufacturing (AM) or 3D-printing is the process of joining materials to make parts from 3D model data, usually layer upon layer, as opposed to subtractive manufacturing and formative manufacturing methodologies. The main advantage is the possibility to make components with impossibly design in a short time. Many different AM-processes are available, where the material are joined together by melting powder or wire using laser or electron beam. Other processes are for example binding powder followed by sintering or printing a sand mould that can be used for traditional casting. However, many different steps are necessary before and after printing, taking an idea all the way to component. The Swedish Arena for Additive Manufacturing of Metals contributes to the development of technology and knowledge to reach the full potential of AM.

Strategy

This will be achieved through the following mechanisms:

Networking and meeting venues are organized within the AM-Arena on various occasions, which are leading to fruitful relations and collaborations between members.

To share information and develop education are important parts of **competence development**, which is strengthened by the 10 academic member organizations. Workshops on different topics and an industrial course are offered to members.

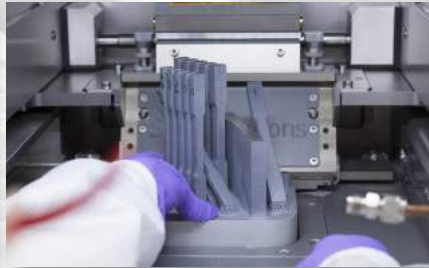
The Swedish roadmap for metal AM sets the direction and prioritizing of the **technology development**. Technical projects are performed within the AM-Arena to speed up the industrialization based on the input from industrial members. In a Swedish perspective, the AM-Arena is collaborating with Vinnova on mapping of on-going projects, coordinating the implementation of the roadmap and measuring its effect on industrialization of metal AM.

Coordination of project initiatives will support a more effective use of research funding and avoid duplication. The AM-Arena spread information about calls for research projects and facilitates idea generation.

The testbed **infrastructure** within the AM-Arena is growing and now consists of 14 AM machines and surrounding equipment useful along the AM process chain, not counting the facilities at the industrial members also offering metal AM services externally. Updated homepage (www.AM-Arena.se) and regular newsletters support a quick information flow.

Activities 2018

- Annual meeting, **April 26**
- Design workshop, **April 26**
- Elmia 3D, **May 15–18**
- AM conference, at Elmia, **May 16**
- Arena member dinner, at Elmia, **May 16**
- Seminar in collaboration with CAM2, “Future AM”, **August 21**
- Visit at member company
- 4 technical group meetings
- 4 board meetings



Members

- 3D MetPrint, Älmhult
- ABB, Västerås
- AIM Sweden, Frösön
- Alfa Laval, Lund
- Atlas Copco, Örebro/Kalmar
- Brogen Industries, Älvängen
- Carpenter Powder Products, Torshälla
- Chalmers University of Technology, Göteborg
- Duroc Laser Coating, Luleå
- Exmet, Kista
- Freemelt, Göteborg
- Hultsfreds kommun, Hultsfred
- Höganäs Sweden, Höganäs
- Jönköping University, School of Engineering, Jönköping
- Karlstad University, Karlstad
- KTH, Stockholm
- Luleå tekniska universitet, Luleå
- Lund University, Lund
- Quintus Technologies, Västerås
- Saab, Linköping
- Scania, Södertälje
- Siemens Industrial Turbomachinery, Finspång
- Swerea
- TRUMPF Maskin, Alingsås
- Uddeholms, Hagfors
- University West, Trollhättan
- Uppsala University, Uppsala
- Örebro University, Örebro

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