# Aerosint and Aconity collaborate to bring 3D printed multi-metal parts to market.

**19th February 2018**, Aerosint (Liège, Belgium) a start-up company developing an innovative selective powder deposition technology and Aconity (Aachen, Germany) commercializing a range of laser powder bed fusion (LPBF) systems and post-processing equipment, partner to advance the research on multi-metal LPBF and hopefully soon bring to market multi-metal LPBF hardware and applications.

LPBF, invented more than 20 years ago, is one of the additive manufacturing processes that is the most widely adopted across the industry. One of the limitations of this process, however, is that it can only produce parts made of one material. Making this process multi-material has been wishful thinking so far because a couple of technical challenges needed to be addressed first.

*We are truly excited to partner with an OEM that has the same DNA as we have at Aerosint. Aconity is innovative and driven to solve challenges that haven't been addressed yet. Together we have all the technical expertise needed to develop very unique LPBF hardware and multi-metal applications.* Edouard Moens de Hase (Managing Director Aerosint)

Aerosint brings a solution to one of the key challenges still remaining to make LPBF multi-material. Its patented powder voxel deposition technology makes it possible to recoat multi-material powder layers. By applying the right energy source to the multi-material powder layers, compatible materials can be fused together to create multi-material parts.

Goal of the collaboration is implementing Aerosint's recoating technology into the Aconity*ONE* LPBF printer. Aconity, with its deep process and materials expertise will subsequently do research on compatible metals and identify the appropriate process parameters for co-fusing of those materials.

*What Aerosint has invented is very unique. An LPBF system with multi-material capabilities is unseen in the industry. Our customers have been waiting for these capabilities and we are therefore excited to start working on a potential solution for them. Multi-material is for us the next evolution of 3D printing and we are happy we can be pioneers here together with Aerosint. Yves Hagedorn (CEO Aconity).*

If meaningful applications are developed as a result of this joint research, the Aerosint module will in the future also be made available to Aconity's customers on the machines options list. Interested companies can reach out to Aconity for more information about this.

**About Aconity**

Aconity3D is a systems provider for flexible application-specific Additive Manufacturing (AM) systems for metals. The company is situated in Aachen's high-technology surrounding of the RWTH University and Fraunhofer research institutes. With the founding team's technological background in production and informatics, the company's focus is set on extending the state of the art in 3D printing of metal parts. Finding new solutions and partnering with customers towards innovating this vast growing field of research brings along further business units, such as Consulting, Job shop, Testing Facilities and Material Distribution.

*Figure 1 Long-term photo exposure of the LBM process*

**About Aerosint**

Aerosint is a Belgian company established in 2016. The company has developed a selective powder deposition system to enable full 3-dimensional control over material placement in powder bed fusion printing processes. Effectively, the main invention is an alternate powder re-coating system that, instead of uniformly spreading just one single powder material, selectively deposits two powders to form a single layer containing two materials. The powder can be a polymer, a metal or a ceramic.

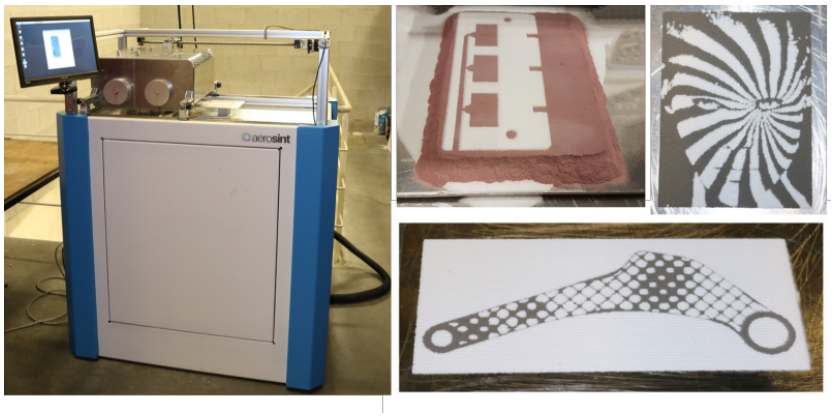


*Figure 2 Powder recoater prototype (left). Multi-material powder layers created with the prototype (right)*

***More information***:

**Edouard Moens**
*Managing Director*
info@aerosint.com
+32(0)43615916

www.aerosint.com

**Yves Hagedorn**
*Managing Director*
info@aconity3d.com
+49 2407/552920

www.aconity3d.com