

# Fabrication Additive

Bulletin de Veille - 15 novembre 2018

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## A LA UNE

### ETH Zurich and Zaha Hadid Architects develop 3D knitted pavillion

02/11/2018 - [3dprintingindustry.com](http://3dprintingindustry.com)



The four meters tall, five-tonne concrete structure, called KnitCandela, integrates over two miles of 3D printed yarn into four strips of between 15 and 26 meters supported by a steel cable-net, demonstrating cost and time effective construction. Earlier this year, researchers on the MAS Digital Fabrication team at ETH Zurich created an experimental metal facade using 3D printed sand molds. Stay updated with the latest additive manufacturing news by subscribing to the 3D Printing Industry newsletter. ..

### BigRep repousse les limites de l'impression 3D grand format

13/11/2018 - [www.primante3d.com](http://www.primante3d.com)



Rare survivant du boom de l'impression 3D en 2014 et sa vague d'imprimantes 3D grand public, la société allemande doit son succès à ses imprimantes 3D FDM (dépôt de matière fondue) très grand format. Stephan Beyer, PDG de BigRep a déclaré à ce sujet : « Cette nouvelle technologie offre le type d'innovation attendu par le secteur, car notre système révolutionnaire MXT permet à nos nouvelles imprimantes d'être cinq fois plus rapides – avec une précision et une qualité supérieures – que les vitesses d'extrusion actuelles ».

## GÉNÉRALITÉS

### Siemens plans major investment in 'Siemensstadt 2.0' – including activities in Additive Manufacturing

01/11/2018 - [www.metal-am.com](http://www.metal-am.com)

Siemensstadt 2.0 will be one of the largest single investments in the company's history (Artist's rendering / Courtesy Siemens AG). Specifically, the company has stated that activities in fields of application including Additive Manufacturing, distributed energy systems and energy management, electric vehicle technology, machine learning, networked assets, the Internet of Things (IoT), artificial intelligence, data analytics and more are to be based in Siemensstadt.

### Industry 4.0: the Key to Continuous Improvement in the Future of Manufacturing

10/11/2018 - [www.engineering.com](http://www.engineering.com)

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- Renishaw partners with Sandvik to increase metal additive manufacturing production

## EVÈNEMENTS / ÉTUDES

Measuring and evaluating what's going on in production is an important part of the job for manufacturing engineers. John Kawola, president of additive manufacturing company Ultimaker, agrees: "The digital age has moved into manufacturing and is starting to have a real impact. For example, a laser-sintering metal 3D printer may report sensor data on laser melt pool temperature every tenth of a second. With better access to data, manufacturing professionals can analyze, predict and manage production more effectively and profitably. ... electrical ...

### LINK3D launches Post Processing Management Technology to optimize 3D printing supply chains

13/11/2018 - [3dprintingindustry.com](http://3dprintingindustry.com)



LINK3D, a New York-based 3D printing software provider, has launched its Post Processing Management Technology for additive manufacturing at Formnext. Contributing to the company's Additive Manufacturing Execution System (AMES) & Additive Workflow Software, the Post Processing work management and scheduling tools are designed to optimize downstream manufacturing processes within a 3D printing supply chain. Stay updated with the latest additive manufacturing news from Formnext by subscribing to the 3D Printing Industry newsletter. ...

## AÉROSPATIAL

### BeAM partners with PFW Aerospace for industrialisation of Directed Energy Deposition

12/11/2018 - [www.metal-am.com](http://www.metal-am.com)

Built using DED, heat treated and partially machined (Courtesy BeAM). BeAM, Strasbourg, France, is partnering with PFW Aerospace GmbH, Speyer, Germany, to qualify an aerospace component for a large civil passenger aircraft using Ti6Al4V which fulfils typical aerospace quality requirements. PFW has reportedly been keeping track of technological developments and the market for Additive Manufacturing processes for four years prior to partnering with BeAM.

## CONCEPTION

### Innovate UK grants Valuechain funding to bring AI to 3D printing

30/10/2018 - [3dprintingindustry.com](http://3dprintingindustry.com)

The funding will go towards integrating Artificial Intelligence capabilities into Valuechain's production management software for additive manufacturing called DNAam. Earlier this year, AMFG partnered with Makelabs to automate Makelabs on-demand 3D printing services. As previously reported, an AI and 3D printing company Ai Build introduced a subscription service to make factories completely autonomous. For more news on AI and 3D printing, subscribe to our 3D printing newsletter. Visit our 3D Printing Jobs for a career in 3D printing.

### A closer look at the developing electronics 3D printing industry

31/10/2018 - [3dprintingindustry.com](http://3dprintingindustry.com)

Last month, 3D Printing Industry published an article about a team from the University of Texas at El Paso (UTEP) who demonstrated the potential to 3D print a volumetric circuit, including pre-made components, in virtually any design. Screenshot via UTEP/EM Lab For more of the latest commentary on electronics 3D printing subscribe to the 3D Printing Industry newsletter, follow us on Twitter and like us on Facebook. .

### Simplify3D V 4.1 adds new capabilities for multi-material 3D printers

- Formnext 2018 – the 3D Printing Industry first look

## RÉGLEMENTATION / BREVETS

- U.S. Copyright Office amends act in favor of open 3D printer materials
- The Long Arms Of BASF Reach Farther

07/11/2018 - [www.3ders.org](http://www.3ders.org)



Simplify3D announced the release of Version 4.1 of its 3D printing software. The new version includes extended capabilities for multi-material 3D printers, intelligent toolpaths for improved print quality, and expanded customization options for greater control over the printing process. The software can also alter solid layers within a print to create a stronger bond with the outer “shell” of the model, increasing the Z-axis strength of the printed parts. Along with the added features, Version 4.1 also includes support for over 50 new 3D printer. Posted in 3D Software.

## TECHNOLOGIES

### Evolve Additive Solutions partners with Kodak to develop electrophotographic technology for 3D printing

05/11/2018 - [3dprintingindustry.com](http://3dprintingindustry.com)



The companies will also work to develop Evolve’s 3D printing technology Selective Thermoplastic Electrophotographic Process (STEP) for commercial release in 2020. “We are very encouraged by the opportunity to expand our electrophotographic platform capabilities outside of 2D imaging to the 3D printing or additive manufacturing sector,” said John O’Grady, President, Print Systems Division, Kodak. Image via US patent 8488994 B2 For the latest additive manufacturing news subscribe to the 3D Printing Industry newsletter , find us on Facebook and like us on Twitter.

### Virtual Foundry, des filaments métalliques pour les technologies FFF

05/11/2018 - [www.3dnatives.com](http://www.3dnatives.com)

L’objectif de notre startup 3D est d’amener la fabrication additive métal dans de plus en plus de secteurs qui en ont besoin, le tout à moindre coût. Filamet™ représente l’ensemble de nos filaments d’impression 3D métal, qui permet à toute personne disposant d’une imprimante 3D FDM de créer des objets contenant au moins 80% de métal. Ils reconnaissent que cette technologie offre une solution simple à un problème difficile.

### LulzBot releases HS-Series Tool Heads for High-Strength 3D Printing

14/11/2018 - [3dprintingindustry.com](http://3dprintingindustry.com)



Lulzbot , the open-source brand of the FDM 3D printers from Colorado-based manufacturer Aleph Objects , has released the LulzBot HS-Series Tool Heads for engineered polymers with exceptional mechanical and thermal properties. Earlier this year, LulzBot released the LulzBot Mini 2 and the Aerostruder v2 Micro tool head for high-precision FFF 3D printing rivaling that of parts manufactured using the stereolithography (SLA) process.

## MATÉRIAUX

### Researchers use industrial wood-waste to make FDM/FFF wood filament

01/11/2018 - [3dprintingindustry.com](http://3dprintingindustry.com)

The paper explored the possibility of upcycling furniture waste into wood filament to reduce the environmental impacts of wood waste. In a four-step process, the scientists demonstrated the

possibility of making 3D printing wood filament with a combination of wood-waste and PLA plastic. The wood powder was added to the melted PLA mix with varying wood to PLA weight percentage (wt%) between 10wt%-40wt% wood-waste powder.

### **New study details toxic particles spewed by 3D printers and hidden health risk**

13/11/2018 - [www.3ders.org](http://www.3ders.org)



Researchers have found that many desktop 3D printers generate a range of different-sized particles, including ultrafine particles (UFPs), which may pose a health concern since they are the size of nanoparticles and may be inhaled and penetrate deep into the human pulmonary system and impact respiratory health.

### **AP&C to offer aluminium alloy F357 powder from April 2019**

13/11/2018 - [www.metal-am.com](http://www.metal-am.com)

The final analysis to determine the content of carbon and sulphur within a metallic matrix, F357 (Courtesy GE Additive). AP&C, a GE Additive company, has announced that it will begin production of aluminium alloy F357 powder in Q1 2019, with customer deliveries expected from April 2019. "The modular cell-based structure of our new plant in Saint-Eustache allows us to respond quickly to the additive industry's demands as it rapidly evolves," he added.

### **MicroMaker3D unveils new Laminated Resin Printing tech for 3D printing tiny structures**

14/11/2018 - [www.3ders.org](http://www.3ders.org)



New Zealand's Callaghan Innovation unveiled Laminated Resin Printing (LRP) – a new 3D printing technology that enables rapid prototyping of high-resolution microscale structures. LRP excels in:

- Rapid prototyping for applications where size and weight matter
- 5-micron voxel printing with high accuracy and complexity
- Printing single layer and multilayer structures
- Producing prints with extreme thermal and chemical resistance
- Printing on a variety of substrates: paper, fabric, silicon wafers, PCBs.

### **BASF presents new 3D printing materials and alliances at Formnext**

14/11/2018 - [3dprintingindustry.com](http://3dprintingindustry.com)



"Our Ultracur3D portfolio enables us to offer customers various UV-curable materials for 3D printing that provide far better mechanical properties and higher long-term stability than most available materials," stated András Marton, Senior Business Development Manager at B3DPS. For more news on 3D printing and the latest releases from Formnext, subscribe to our 3D printing newsletter. Visit our 3D Printing Jobs to start a new career in 3D printing.

### **New in 3D Printing Thermoplastic Polyurethane: FDM TPU 92A Elastomer**

14/11/2018 - [www.stratasysdirect.com](http://www.stratasysdirect.com)

FDM TPU 92A Elastomer Stratasys Direct Manufacturing is now offering parts built with Fused Deposition Modeling™ (FDM) TPU 92A Elastomer, in conjunction with Stratasys' offering of the material for their F123 series printers. TPU or thermoplastic polyurethane is a type of elastomer material, a polymer with the property of elasticity.

## Tekna opens \$5.5M production plant for additive metal powders

01/11/2018 - [3dprintingindustry.com](http://3dprintingindustry.com)

Founded in 1990 in Southern Quebec, Tekna develops and produces high-purity metal powders for 3D printing, metal injection molding, and microelectronics, in addition to optimized induction plasma systems for industrial research and production. ICP is used as a type of energy source supplied by electric currents within powder densification, spheroidization, and nanopowder synthesis processes. Stay updated with the latest additive manufacturing news by subscribing to the 3D Printing Industry newsletter. ...

## DMG MORI invests in Indian Additive Manufacturing software developer

14/11/2018 - [www.metal-am.com](http://www.metal-am.com)



INTECH DMG MORI has announced that it has taken a 30% stake in the Indian company, INTECH, a developer of software for Additive Manufacturing, machine learning and artificial intelligence. INTECH is reported to be a pioneer in metal Additive Manufacturing in India. OPTOMET can also be applied to other key technologies within additive manufacturing, such as directed energy deposition and binder jetting.

## Renishaw partners with Sandvik to increase metal additive manufacturing production

14/11/2018 - [3dprintingindustry.com](http://3dprintingindustry.com)

Earlier this year, Sandvik announced plans to establish a production plant for 3D printing materials in Sweden, close to the company's additive manufacturing R&D center. Photo by Michael Petch. Stay updated with the latest 3D printing from Formnext by subscribing to our 3D printing newsletter. Visit our 3D Printing Jobs to start a new career in 3D printing. .

## EVÈNEMENTS / ÉTUDES

### Formnext 2018 – the 3D Printing Industry first look

13/11/2018 - [3dprintingindustry.com](http://3dprintingindustry.com)



A much larger conveyor belt 3D printing system from Triditive called the AMCELL can be found in hall 3 at A28. The later metal AM system is intended as a “highly productive and automated” 3D printing system. While Additive Industries has the modular MetalFAB1, a metal 3D printing solution that almost spans the length of their booth. Metal 3D printing is at the front of the Shining 3D booth this year. Joining the Rize One is a new machine called the xRize – a color FDM 3D printing system. For new opportunities across additive manufacturing visit 3D Printing Jobs.

Voir aussi : [3d-printing-preview-and-exclusive-exhibitor-comment](#)

## RÉGLEMENTATION / BREVETS

### U.S. Copyright Office amends act in favor of open 3D printer materials

31/10/2018 - [3dprintingindustry.com](http://3dprintingindustry.com)



In a further amendment directly related to 3D printing, 3D printers that produce goods subject to regulatory oversight are now exempt from a restriction on access to the filaments they use. To stay up to date on all the latest legal and regulatory news related to 3D printing subscribe to the 3D Printing Industry newsletter , find us on Facebook and like us on Twitter. ..

### **The Long Arms Of BASF Reach Farther**

09/11/2018 - [www.engineering.com](http://www.engineering.com)

Illustration of Photocentric's new machine concept (Source: US PTO) Another day, another 3D printing partnership from BASF. This time the industrial chemical giant inked a deal with UK-based Photocentric to develop industrial 3D printing processes based on resin processes. How can two materials makers develop industrial 3D printing? This patent describes a resin-based 3D printer that uses a common phone or TV monitor as the non-UV light engine, with a simple silicon coating to reduce sticking.

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