

# Fabrication Additive

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## A LA UNE

### LearnbyLayers, l'enseignement de l'impression 3D à l'école

27/09/2018 - [www.3dnatives.com](http://www.3dnatives.com)



Former à l'impression 3D est aujourd'hui un enjeu clé car les technologies 3D prennent de plus en plus d'ampleur dans les processus de fabrication, entraînant avec elles de nombreux défis techniques et organisationnels. LearnbyLayers est une idée assez simple : vous achetez des plans de cours et les télécharger pour les enseigner dans votre école. 3DN : Quel type de contenus proposez-vous aux enseignants ? ..

## GENERALITES

### UCD opens \$25.7 million advanced manufacturing research center with 3D printing focus

27/09/2018 - [3dprintingindustry.com](http://3dprintingindustry.com)



The I-Form's official launch was presided over by Ireland's Minister for Innovation, Research and Development John Halligan, SFI Director General Professor Mark Ferguson, VP for Research at UCD Professor Orla Freely, and I-Form Center Director Professor Denis Dowling. (From left to right: UCD Professor Orla Freely, SFI Director General Prof Mark Ferguson, Ireland's Minister for Innovation, Research and Development John Halligan and I-Form Centre Director Prof Denis Dowling.

### Australia science agency report identifies additive manufacturing as key for Space 2.0

25/09/2018 - [3dprintingindustry.com](http://3dprintingindustry.com)



Australia hopes to benefit from the growing Space industry, enabled in part by 3D printing. Furthermore, SpaceX, Rocket Lab and other companies such as Relativity Space, are all using additive manufacturing as an enabling technology for space ventures. Australia Space Agency (ASA) head Dr Megan Clark also spoke during the Gold Coast event and highlighted both Australia's historic role in space exploration, specifically the Apollo missions to the moon, and also the terrestrial conditions in parts of Australia that also provide useful experience.

## AEROSPATIAL

### Interview with Simon Fried, Nano Dimension: 3D printing non-planar electronics

17/09/2018 - [3dprintingindustry.com](http://3dprintingindustry.com)

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## MARKET / BUSINESS

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- Prodways launches e-commerce site for high-performance 3D printing materials
- SHINING 3D Announces Strategic Partnership with ArtSystems
- GE Transportation to produce up to 250 3D printed locomotive parts by 2025
- 3D printed Luneburg lens antenna startup Lunewave raises \$5M in seed funding

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- Dreaming & Doing – 5 Trends from IMTS 2018
- Updated programme for the 2018 Global Altair Technology Conference

## REGLEMENTATION / BREVETS

- SLM Solutions aids DIN Committee to accelerate additive manufacturing materials standardization
- CECIMO joins ISO Technical Committee on Additive Manufacturing



In this interview Simon Fried , CBO and co-founder of PCB 3D printing company Nano Dimension , discusses the role of 3D printing in non-planar electronics, and the rise of a parallel additive manufacturing sector. Hailed by some as “the holy grail of 3D printed electronics” one example device given in the course of my conversation with Fried is a cell phone. For example, as metal gets more popular, polymer responds with stronger, fiber-reinforced materials, and this parallel development is something that is welcomed for the future of 3D printed electronics.

## Betatype reengineers 3D printed electrical generator housing for Safran Electrical & Power

28/09/2018 - [3dprintingindustry.com](http://3dprintingindustry.com)



Considering the increasing use of additive manufacturing in the aerospace sector, Safran Electrical & Power, sought out Betatype , UK-based developers of additive manufacturing software , to help meet the demand of customers requesting distinct metal 3D printed parts. Betatype’s technologies have been previously used to design and re-engineer a metal 3D printed engine shell as well as a 3D printed aluminum alloy heat exchanger. Stay updated with the latest case studies related to 3D printing by subscribing to the 3D Printing Industry newsletter. ..

## Paul G. Allen's Stratolaunch space venture uses 3D printing to develop PGA rocket engine

01/10/2018 - [www.3ders.org](http://www.3ders.org)



“With a 100 percent in-house design, the engine will support multiple configurations of Stratolaunch’s future in-house launch vehicles to provide customers a more affordable price-to-orbit for payload,” said the company. About 85 percent of manufacturing process will take advantage of additive-manufacturing techniques. Additive manufacturing leads to rapid prototyping on a scale faster than traditional methods, allowing for new designs that are not possible with traditional manufacturing methods. Posted in 3D Printing Applications. ... oxygen ... 3D printed ...

## Launcher successfully test-fires EOS 3D printed copper rocket engine

01/10/2018 - [3dprintingindustry.com](http://3dprintingindustry.com)



Now, with the successful test firing of a 3D printed copper alloy E-1 engine, the company is one step further on its 10-year journey to provide low-cost solutions for entrepreneurs seeking commercial satellite launch. (The 3D printed copper E1 engine. In June 2018, Launcher confirmed a manufacturing partnership with leading 3D printer provider EOS. For more aerospace updates subscribe to the 3D Printing Industry newsletter , and join us on Facebook and Twitter.

## CONCEPTION

### LINK3D partners with Aachen Center to promote AM in Europe

27/09/2018 - [3dprintingindustry.com](http://3dprintingindustry.com)



LINK3D, a New York-based 3D printing workflow software provider, has partnered with the German AM R&D hub Aachen Center for Additive Manufacturing (ACAM) to promote AM industry in Germany and Europe. Earlier this month, the nano-scale 3D printing service provider, BMF Material Technology (Guangdong, China) partnered with cloud-based software Onshape, to provide its customer with real-time CAD support. Catch all the 3D printing related news by subscribing to our 3D printing newsletter.

### Xometry launches exclusive Shop Advantage Program for manufacturing partners

17/09/2018 - [3dprintingindustry.com](http://3dprintingindustry.com)



Maryland-based on-demand manufacturing platform Xometry has launched a Shop Advantage Program to provide easy access to on-demand services for its manufacturing partners in CNC machining, plastic/metal 3D printing, injection molding, sheet metals, and urethane casting. In August, the company added 3D visualization kit HOOPS communicator to its instant quotation engine which enables the user to see detailed and precise 3D models for manufacturing feedback. For more business-related news in 3D printing industry subscribe to our 3D printing newsletter.

### Design Next-Generation Products

26/09/2018 - [www.stratasysdirect.com](http://www.stratasysdirect.com)



Alongside these advancements has arisen manufacturing methods like 3D printing that enable designers and engineers to envision detailed, complex geometries uninhibited by traditional design-for-manufacture rules. If designers and engineers are planning on utilizing 3D printing for any stage of product development, they may need to incorporate additive manufacturing specific design considerations into their 3D models. Design Solutions Our Design Guidelines explain key considerations for designers utilizing specific types of 3D printing technology.

### How To Translate 3D CAD Files into .STL Files: SolidWorks

26/09/2018 - [www.stratasysdirect.com](http://www.stratasysdirect.com)



How To Translate 3D CAD Files into .STL Files: SolidWorks Additive manufacturing uses 3D CAD files in the form of a .STL file type, click on the "Options" button to adjust the settings. "Coarse" should be rarely used; "Fine" is a safe bet for FDM, PolyJet, SL, and most 3D Printing processes (depending on platforms). You Might Be Interested In (mahle) 3D Printing Puts Fixtures into Gear Automotive parts supplier gets up to speed on FDM's capabilities for fixtures.

## TECHNOLOGIES

### Laser Sintering Design Tips: Wall Thickness

26/09/2018 - [www.stratasysdirect.com](http://www.stratasysdirect.com)



Laser Sintering is one of the more popular 3D printing technologies for executing branching designs with fluid-like walls because it is the only process which doesn't require attached support structures that must be removed in post-processing. (Key Considerations when 3D Printing with Thermoplastics) Key Considerations when 3D Printing with Thermoplastics Learn the key differences of 3D printing thermoplastics and related design considerations Learn the key differences of 3D printing thermoplastics and related design considerations.

### 3D Printing Technologies Comparison: Multi Jet Fusion vs. Laser Sintering

26/09/2018 - [www.stratasysdirect.com](http://www.stratasysdirect.com)



Laser Sintering (LS, aka Selective Laser Sintering and SLS) and Multi Jet Fusion (MJF) are both powder-bed fusion 3D printing technologies. What is Multi Jet Fusion? Get a Quote Multi Jet Fusion Resources (multi jet fusion) Making Better Production Parts Multi Jet Fusion's utilization in a manufacturing environment. (multi jet fusion) Multi Jet Fusion in a Manufacturing Environment How does Multi Jet Fusion perform in a production environment?

### Direct Metal Laser Sintering Resources

26/09/2018 - [www.stratasysdirect.com](http://www.stratasysdirect.com)



In recent years, nothing has garnered more attention, and growth, in the 3D printing industry than Additive Metals. With this attention, however, has come skepticism surrounding the consistency in quality and capabilities of additive metal alloys, particularly whether additive metals can achieve repeatability requirements accustomed to metal manufacturing. (additive metals infographic) Additive Metals Infographic A visual exploration of DMLS' groundbreaking benefits and some common applications.

## MATERIAUX

### Liberty Powder Metals granted £4.6 million to develop automotive-grade 3D printer alloys

01/10/2018 - [3dprintingindustry.com](http://3dprintingindustry.com)



Liberty Powder Metals, owned by Liberty House Group, an industrial metals company based in the UK, has received a £4.6 million investment to develop specialty alloy metal powders for 3D printed car parts. As part of the Liberty House scheme, this investment comes from Liberty Steel and the CASCADE project, a Research and Development initiative funded by the UK Government. (Inside the Liberty Steel site in Stocksbridge, Sheffield.

### FDM Antero™ 800NA & New Opportunities for Chemical Resistant 3D Printed Parts

26/09/2018 - [www.stratasysdirect.com](http://www.stratasysdirect.com)

FDM Antero™ 800NA & New Opportunities for Chemical Resistant 3D Printed Parts The latest in Fused Deposition Modeling (FDM) materials offers expanded opportunities for plastic 3D printed production parts in a key area – chemical resistance. Now, designers and engineers can take advantage of the advanced properties of PEKK with the design freedom and fast

production times of 3D printing. The material can be used in aerospace applications such as clips, brackets, ducting, tooling, space vehicle components, ground support equipment, and test and flight operations.

#### 4 Considerations for Material Selection

26/09/2018 - [www.stratasysdirect.com](http://www.stratasysdirect.com)

Application When choosing a material and 3D printing process for your project, you should ensure that your material corresponds with the certifications and/or key characteristics needed for the application. Once you've determined the needs of your application, the Material Wizard allows you to filter through all of our available materials that fulfill these requirements by clicking through the Key Characteristics tabs or adjusting the material properties sliders to specific measurements.

#### Cast Urethane Design Considerations

26/09/2018 - [www.stratasysdirect.com](http://www.stratasysdirect.com)

The bond of Micro-welded inserts in urethane cast parts are on average 50-100% stronger than conventionally bonded inserts and over 100% stronger than heat staked inserts. We have developed the chart below as a reference guide for incorporating inserts with urethane cast parts. (Urethane Casting) Urethane Casting: Prototype to Production "It's a great way to get parts to market without having to wait or spend the capital investing in injection molding or hard tooling.

### MARKET / BUSINESS

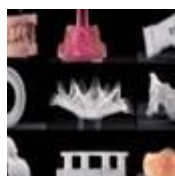
#### Impression 3D métal : AddUp annonce un projet de prise de participation majoritaire dans Poly-Shape

17/09/2018 - [www.primante3d.com](http://www.primante3d.com)

Réparti sur 4 sites (Salon-de-Provence, Saint-Pierre-du-Perray, et Le Coudray-Montceaux en France ainsi qu'un site à Carpi en Italie), il intègre également des moyens de post-traitement. L'apport de Poly-Shape permettra enfin à AddUp d'accélérer le développement de son offre machines et services en bénéficiant de l'expertise des équipes Poly-Shape issue de 11 années de présence dans la production de pièces 3D métal ainsi que d'un retour d'expérience immédiat en tant qu'utilisateur des machines AddUp.

#### Prodways launches e-commerce site for high-performance 3D printing materials

17/09/2018 - [3dprintingindustry.com](http://3dprintingindustry.com)



Prodways Materials, a subsidiary of French 3D printing specialists, Prodways Group, has launched its e-commerce website, [prodwaysmaterials.com](http://prodwaysmaterials.com), for additive manufacturing materials. The company manufactures and develops 3D printing technologies such as the ProMaker LD-3 MovingLight DLP 3D printer while providing services for custom part production. "With the new e-commerce website our goal is to enable easier access to Prodways Materials' expertise in the development of new 3D printing materials," added Sébastien Vercruyssen, Business Development Director at Prodways Group.

#### SHINING 3D Announces Strategic Partnership with ArtSystems

29/09/2018 - [www.3ders.org](http://www.3ders.org)



SHINING 3D develops, manufactures and commercializes a wide range of 3D technologies, including 3D scanners for multiple industries and applications, 3D printers for both consumer markets and additive manufacturing, 3D materials, offers 3D design and manufacturing services, and a 3D network cloud platform. "As the demand for 3D digitizing and 3D printing technology continues to increase, we are excited to partner with ArtSystems to bring comprehensive 3D solutions to British customers," said Oscar Meza, vice president of global sales at SHINING 3D.

### GE Transportation to produce up to 250 3D printed locomotive parts by 2025

28/09/2018 - [www.3ders.org](http://www.3ders.org)



If the trial proves to be successful, 3D printing could be used in the production of up to 250 locomotive components by 2025. The company is looking to build on the experience of GE's aviation business with 3D printing to reduce the time needed to produce components. The 3D printed components can also be more compact and more precisely designed to meet the end use requirement, according to Dominique Malenfant, Vice-President of Global Technology. " 3D printing will also enable GE to make complex components in a single print job. .

### 3D printed Luneburg lens antenna startup Lunewave raises \$5M in seed funding

28/09/2018 - [www.3ders.org](http://www.3ders.org)

Fraser McCombs Capital, a venture and growth equity investment firm focused on automotive technology, led the round of financing, which also include strategic investments from BMW i Ventures, Baidu Ventures, an independent venture fund established in 2017 with a special focus on artificial intelligence technology, and others. Founded in 2017 by John Xin, Hao Xin, Sherry Byon and Min Liang, Lunewave manufactures 3D printed Luneburg lenses that could be used in radar systems for the automotive industry.

## EVENEMENTS / ETUDES

### Dreaming & Doing – 5 Trends from IMTS 2018

17/09/2018 - [www.engineering.com](http://www.engineering.com)

Additive Manufacturing for Production Two of the biggest announcements from this year's show concerned additive manufacturing (AM), with an emphasis on the manufacturing. On the same day that HP officially announced its new Metal Jet 3D printing technology , 3D Systems and GF Machining Solutions unveiled the DMP Factory 500 system for metal additive manufacturing at production volumes.

### Updated programme for the 2018 Global Altair Technology Conference

27/09/2018 - [www.metal-am.com](http://www.metal-am.com)



The event will offer in-depth workshops, technical sessions and keynote presentations on the latest trends in Design for Additive Manufacturing, generative design, multi-disciplinary optimisation, the internet of things (IoT) and the digital twin, e-mobility, and machine learning.

## REGLEMENTATION / BREVETS

### SLM Solutions aids DIN Committee to accelerate additive manufacturing materials standardization

28/09/2018 - [3dprintingindustry.com](http://3dprintingindustry.com)



SLM Solutions Group , a German manufacturer of metal 3D printers, is to support the German Institute for Standardization (DIN), who has founded the Additive Manufacturing Steering Committee in the DIN Standards Committee Technology of Materials. Following this, America Makes , and its partner the American National Standards Institute (ANSI) published the Standardization Roadmap for Additive Manufacturing (Version 2.0) which lists 93 “gaps” in appropriate standards and specifications for 3D printing and its related processes.

### CECIMO joins ISO Technical Committee on Additive Manufacturing

27/09/2018 - [3dprintingindustry.com](http://3dprintingindustry.com)



In pursuit of this goal, CECIMO has also joined forces with EPMA , the European Powder Metallurgy Association, and, more recently, joined the advisory board of joined the advisory board of ASTM International’s Additive Manufacturing Center of Excellence. (Image: ASTM) The ASTM Additive Manufacturing Standards Structure.ISO standardization. With shared goals, as of 2016 ISO has also had a formal agreement with ASTM International that, similarly, has had the F42 Additive manufacturing Technologies Committee in place since 2009.

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