

Dassault Systèmes and Airbus APWorks Collaborate to Advance the Use of Additive Manufacturing for Serial Production

- Additive manufacturing lets aerospace and defense companies do more with less
- Leveraging the 3DEXPERIENCE platform and APWorks' metal 3D printing expertise
- Virtual validation for certified, serial additively manufactured parts

LE BOURGET (Paris Air Show), France — June 20, 2017 — [Dassault Systèmes](#) (Euronext Paris: #13065, DSY.PA), the 3DEXPERIENCE Company, world leader in 3D design software, 3D Digital Mock Up and Product Lifecycle Management (PLM) solutions, and [Airbus APWorks GmbH](#), a subsidiary of Airbus and specialist in metal 3D printing, today announced that they have entered into a collaborative partnership to advance the use of additive manufacturing for large-scale production in the aerospace and defense industry. The collaboration will leverage Dassault Systèmes' 3DEXPERIENCE platform and APWorks' consulting, engineering and production expertise for new developments in the virtual validation of the additive manufacturing process.

Dassault Systèmes and APWorks will extend the capabilities of the "[Co-Design to Target](#)" industry solution experience to develop an integrated process that provides digital continuity for all engineering parameters across the value chain necessary for the additive manufacturing of a part. This will make the additive manufacturing process, from design optimization up to production, replicable and scalable.

The next generations of aerospace parts are becoming lighter and more reliable thanks to additive manufacturing. As increasingly sophisticated designs, new high-performance materials and faster machines emerge, the use of additive manufacturing is extending beyond creative product design and prototyping to gain traction as one of the key industrial manufacturing processes worldwide.

Virtual technologies can help accelerate this large-scale adoption. Dassault Systèmes' and APWorks' new end-to-end process will deliver a single source of data to address upstream material design and downstream manufacturing processes and testing. The integration of 3D design combined with engineering and simulation optimizes parts for additive manufacturing, enables standardized parameters and therefore allows certification standards. Subsequent steps such as testing, optimization and additive manufacturing of a part can be matched to the identified parameters. Original equipment manufacturers can optimize their conceptual designs by connecting with their supply chains to perform virtual validation during each phase and to detect problems before a part is produced.

"The 3DEXPERIENCE platform is a first important step to replicable and scalable serial production. Simulation can help to predict and avoid part failures," said Joachim Zettler, CEO, APWorks. "The aviation industry is safety-oriented and new product introductions typically take time. With the virtual validation of the additive manufacturing process, we can expect certified serial additively manufactured parts."

"Virtual technologies and additive manufacturing are enabling the industrial world to do more with less waste, weight and costs, as well as freeing designers to explore complex shapes that could not be

manufactured using traditional processes,” said Michel Tellier, Vice President Aerospace & Defense Industry, Dassault Systèmes. “Only by reducing the distance between real and virtual to zero can industry build and experience the future. Dassault Systèmes is joining efforts with leading-edge innovators in this field like APWorks to accelerate technology adoption in the industry.”

In addition to aerospace and defense, the collaboration will target potential applications in the automotive and medical industries, as well as in robotics and mechanical engineering.

Dassault Systèmes will be attending this year’s [International Paris Air Show](#) (June 19-25), booth E172 (hall 2B) and chalet B161 (by invitation only).

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About Airbus APWorks GmbH

As a 100 % subsidiary of Airbus, Airbus APWorks GmbH makes proven aerospace technologies accessible in many different industries. Focusing on metal 3D printing (additive manufacturing) the company covers the entire value chain, from optimized component and part design to the choice of suitable materials, from prototyping to qualified serial production. Customers in robotics, mechanical engineering, automotive, medical technology and aerospace benefit from functionally integrated and optimized parts with reduced weight and lead time. 3D printing also allows much more complex geometries than were previously possible. Airbus APWorks GmbH has been located on the Ludwig Bölkow Campus in the south of Munich since 2013.

About Dassault Systèmes

Dassault Systèmes, the 3DEXPERIENCE Company, provides business and people with virtual universes to imagine sustainable innovations. Its world-leading solutions transform the way products are designed, produced, and supported. Dassault Systèmes’ collaborative solutions foster social innovation, expanding possibilities for the virtual world to improve the real world. The group brings value to over 220,000 customers of all sizes, in all industries, in more than 140 countries. For more information, visit www.3ds.com.

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