Expliseat uses ESI’s Virtual Seat Solution to develop the world’s lightest aircraft seat

The new Titanium Seat successfully achieves EASA certification at first try-out

Paris, France, July 17, 2014 - ESI Group, pioneer and world-leading supplier of virtual prototyping software for manufacturing industries, announces that Expliseat has obtained certification for their revolutionary Titanium aircraft seat; developed with the help of ESI's Virtual Seat Solution. French company Expliseat thereby releases the lightest seat ever certified by the European Aviation Safety Agency (EASA).

The Titanium seat was developed in record time thanks to a highly innovative design and manufacturing process. Expliseat used ESI’s Virtual Seat Solution to develop and test fully virtual seat prototypes; easily conducting many iterations without the need to build numerous (and costly) real prototypes.

"Virtual Prototyping empowers SMEs to shorten the pre-industrial phase of their new products – and to do so with minimum initial investment," explains Fouad El-Khaldi, Industry Strategy & Innovation General Manager, ESI Group.

Virtual Seat Solution is a dedicated software solution for seat design, manufacturing and performance that takes into account the physical behavior of materials and enables virtual pre-certification of a seat before final testing of the real seat.

Thanks to Virtual Seat Solution, Expliseat was able to develop and test newly patented technologies that are used to absorb the shocks felt by aircraft passengers during the flight and thereby increase comfort.

“Virtual Prototyping is a proven industrial approach to pre-certify the manufacturing process and performance of an innovative product, such as our Titanium seat. Our experience working with ESI’s Virtual Seat Solution confirms the efficiency of this solution in speeding up innovation. Virtual Seat Solution has helped us reduce drastically the development time usually required to design an innovative product, and has allowed us to increase the business value of our company in record time!” explains Vincent Tejedor, CTO of Expliseat.
Available for Airbus 320 and Boeing 737 aircrafts, the new Titanium Seat from Expliseat fulfills the many requirements of an economy class seat: light weight, sleek design, excellent ergonomics, ease of personalization, safety, and durability.

Combining the use of new materials with a novel design, Expliseat’s super-lightweight Titanium Seat weighs only 4 kilograms. It is the first seat ever certified by EASA under the 5kg mark. The seat features an innovative titanium and composite structure, which can be covered either with textile or leather materials. The Titanium Seat offers at least 50 percent weight saving compared with today’s lightest existing models (8 to 10 kilograms); a significant weight reduction that can translate into an estimated 3 to 5 percent fuel saving – or $300,000 to $500,000 per aircraft per year.

The Titanium seat received ETSO C39c approval from the European Aviation Safety Agency on April 1, 2014. The ultra-light seat respects all E.U. safety standards and is now approved for flight on board European and international airline companies.

For more information about ESI’s Virtual Seat Solution, please visit http://www.esi-group.com/virtualseat
About Expliseat
Founded in March, 2011 by Benjamin Saada, Jean-Charles Samuelian and Vincent Tejedor, Expliseat combines innovation and manufacturing performance in a single product: the Titanium Seat. At just 4 kg, this seat reduces fuel consumption considerably, resulting in savings of up to $500,000 per plane per year. With 10 patents, the Titanium Seat provides passengers with greater comfort and more space, thanks to its unique ergonomic design. For more information please visit www.expliseat.com

About ESI Group
ESI is a pioneer and world-leading supplier of Virtual Prototyping software that takes into account the physics of materials. ESI boasts a unique know-how in Virtual Product Engineering, based on an integrated suite of coherent, industry-oriented applications. Addressing manufacturing industries, Virtual Product Engineering aims to replace physical prototypes by realistically simulating a product’s behavior during testing, to fine-tune fabrication and assembly processes in accordance with desired product performance, and to evaluate the impact on product use under normal or accidental conditions. ESI’s solutions fit into a single collaborative and open environment for End-to-End Virtual Prototyping. These solutions are delivered using the latest technologies, including immersive Virtual Reality, to bring products to life in 3D; helping customers make the right decisions throughout product development. The company employs about 1000 high-level specialists worldwide covering more than 40 countries. ESI Group is listed in compartment C of NYSE Euronext Paris.

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