

## ESI brings Smart Manufacturing Solutions to Farnborough Airshow

## A Human-centric Approach to Improve Productivity and Achieve Manufacturing Excellence

Paris, France – July 9, 2018 – <u>ESI Group</u>, leading innovator in <u>Virtual Prototyping</u> software and services for manufacturing industries, announces its presence at the <u>Farnborough</u> <u>International Airshow (FIA)</u>, organized in the UK from July 16 to 22. This year, ESI will put a spotlight on human-centric engineering, powered by <u>Virtual Reality (VR)</u>, and its Hybrid Twin<sup>™</sup> solutions powering Industry 4.0.

Major innovations in the Information & Communications Technologies (ICT) sector are precipitating the fourth industrial revolution, bringing fast and profound changes to the manufacturing industries. If the Factory of the Future showcases technology, one thing has not changed: human interactions remain the center of attention, with operators focusing on increasingly complex tasks bringing high added-value. As design sets the stage for manufacturing and service, it is critical for engineering teams to recognize the interactions of people with their working environment, as early as possible. Not only is this ability pivotal to validate product designs, conceive adequate tooling, or to plan factory layouts, it's also necessary to improve comfort and ergonomics on the production line, to reduce operational risks and to boost productivity and profitability.

To this aim, ESI adopts a <u>human-centric approach</u> by enabling collaboration in "immersive design reviews". Global engineering teams can take into consideration the full scope of aircraft development and realistically evaluate the human interactions for build processes and maintenance tasks. Experiencing the installation or removal of key parts and components validates the feasibility of new product assembly and maintenance tasks and is done intuitively rather than performing complex on-screen manipulations. Using ESI's Virtual Reality solution, engineers can build and service their products in a pilot assembly hall that fits virtually in their office.



<u>Image:</u> 777X manufacturing and production engineers following the movements of a virtual manikin using ESI IC.IDO. Image ©Boeing.



ESI IC.IDO enables engineering teams to make better informed design decisions early and reduce the need for late and costly engineering changes. Very importantly, the use of Virtual Reality to conduct Human-Centric Assembly and Maintenance Validations during the design review process can significantly reduce risks to operator safety, improve on time delivery, deliver repeatable quality, and ultimately improve product profitability.

<u>Boeing</u> uses ESI's Virtual Reality solution to simulate and validate assembly processes for the 777X: from the very first steps of Virtual Prototyping, <u>Boeing engineers turn to ESI IC.IDO to</u> <u>experience the future assembly sequencing in immersive 3D</u>. Safety issues can be identified much earlier in product development, long before they become a concern. World class manufacturing organizations, like Boeing, have embraced Virtual Reality during the engineering, assembly and service planning processes; addressing safety, cost, lead time, and quality challenges before physical build.

During the Farnborough Airshow, ESI will also present its digital framework for predictive maintenance. Using a <u>Hybrid Twin</u><sup>™</sup> based on Virtual Prototypes enriched with past and present operational data, parts manufacturers can assess the operational performance of their infrastructures in near-real-time or predict future performance by smart use of sensor data. As a result, they can optimize their operations, and ensure sustainable performance that delivers the right experience for their end-users.

To learn more about ESI's solutions, meet us on the booth of the <u>West of England Aerospace</u> <u>Forum (WEAF)</u>. This leading networking association for aerospace and defense companies in the South West of England will be located in Hall 1 at the Airshow, in the UK Pavilion near the main show entrance.

For more ESI news, visit: www.esi-group.com/press

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## **About ESI Group**

ESI Group is a leading innovator in <u>Virtual Prototyping</u> software and services. Specialist in material physics, <u>ESI</u> has developed a unique proficiency in helping industrial manufacturers replace physical prototypes by virtual prototypes, allowing them to virtually manufacture, assemble, test and pre-certify their future products. Coupled with the latest technologies, Virtual Prototyping is now anchored in the wider concept of the *Product Performance Lifecycle*<sup>TM</sup>, which addresses the operational performance of a product during its entire lifecycle, from launch to disposal. The creation of a *Hybrid Twin*<sup>TM</sup>, leveraging simulation, physics and data analytics, enables manufacturers to deliver smarter and connected products, to predict product performance and to anticipate maintenance needs.

ESI is a French company listed in compartment B of NYSE Euronext Paris. Present in more than 40 countries, and addressing every major industrial sector, <u>ESI Group</u> employs about 1200 high-level specialists around the world and reported annual sales of €135 million in 2017. For more information, please visit <u>www.esi-group.com</u>.

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