



## ESI Connects Virtual Prototyping with Product Operational Performance

### Empowering Manufacturers to Master their Full “Product Performance Lifecycle” (PPL)

Paris, France – May 17, 2016 – [ESI Group](#), pioneer and world-leading solution provider in [Virtual Prototyping](#) for manufacturing industries, introduces a complete and transformational offering to help industrial manufacturers leapfrog their traditional “Product Lifecycle Management” (PLM), which focuses on design and development, and manage instead their “Product Performance Lifecycle” (PPL) during the anticipated operational product life all the way from maintenance to phase-out. With recent acquisitions in Systems Modeling, Cloud delivery, Data Analytics and Machine Learning, ESI has dramatically extended the customer value of its core business of Virtual Prototyping. Today, ESI enables its customers to close the loop between:

- on the one hand the product development space, using digital models to virtually design and develop – i.e. test, fabricate and assemble – products before they exist in the real world
- and on the other hand the product actual operations – i.e. once the product has rolled out of the assembly line – by incorporating real-time and real-world data to better understand and mitigate how a product is used, mis-used, ages and ultimately fails or is retired.

Product Performance Lifecycle (PPL) implementation is especially relevant to the autonomous systems market (such as for autonomous vehicles) and in extension, to all other markets related to connected sensors and cyber-objects, which are currently experiencing exponential growth. ESI’s Virtual Prototyping solutions, which already combine 3D-4D detailed ‘passive’ modeling and 0D-1D reduced ‘active’ system integration, are now acquiring a ‘learning’ aptitude to get autonomous and smart. Virtual Prototyping immersed in PPL is set to reach a larger community of professional consumers in the world of smart operations, predictive maintenance & competitive services.

*“ESI’s innovative strategy to combine Virtual Prototyping with data-driven analytics and immersive Virtual Reality experience enables industrial manufacturers to maximize the useful and reliable operational lifetime of their products through constant performance management,”* says **Cristian Tanasescu**, Executive Vice President of [ESI Group](#). *“Product Performance Lifecycle (PPL) strongly differentiates ESI from traditional PLM vendors.”*

ESI has recently executed a series of strategic acquisitions destined to make Virtual Prototyping vastly more valuable and accessible. In order to develop smarter and tentatively autonomous products, designers and engineers must anticipate multiple new unknown and associated risks, which now call for simulating the somewhat unclear ways different sensors and [systems](#) may interact and function/dysfunction together. In addition, it becomes increasingly critical to enable system ‘fault’ prediction at an operational level, resulting for instance from design weaknesses,



fabrication defects, or wear and tear, to mitigate detrimental consequences right from the conception phase. With the ominous swell of data coming from various sensors, as our vehicles, phones, homes, and all other ‘smart’ objects in our daily life become interconnected through the pervading growth of the “Internet of Things”, it is essential and critical that not only data analysts, but also engineers, designers and other stakeholders learn how to make sense and create value out of the mass of “big data” and intelligence continuously created.

The users of ESI’s Virtual Prototyping solutions are entitled to and expect to leverage the latest advancements in Data Analytics and Machine Learning technologies in an intuitive way, so as to get quicker answers from their virtual prototypes and to anticipate any failures in their end product operations. This is what ESI’s [Data Analytics](#) team is dedicated to deliver. We also expect to refine and provide advanced Computer Aided Engineering solutions (CAE) to any ‘mobile’ user around the world, without any significant hardware investment. Today, [ESI Cloud](#) enables easy-to-use CAE in the Cloud and will deliver more and more Cloud solutions in the near future, so that Virtual Prototyping can be easily accessible to an increasingly large community of users. Thanks to ESI’s recent acquisitions of pioneering technologies (namely: [CyDesign](#), [Amoeba/Presto](#), [Ciespace](#), [PicViz/INENDI](#), [Civitec](#), [ITI](#) and [Mineset Inc.](#)), all these concepts and creative teams are now put in synergistic use, to support data-driven intelligent decision making.

The deeply transformational Product Performance Lifecycle (PPL) approach enables manufacturers to develop what has been coined as the “Virtual Twin” of their real-world product; one that can be used to make smarter decisions in all product lifecycle stages from design, development, testing, fabrication, operations and maintenance-repair to phase-out. ESI is now poised to equip industrial leaders with the right tools to develop connected products and predict operation and maintenance conditions from a very early stage of product design and development.

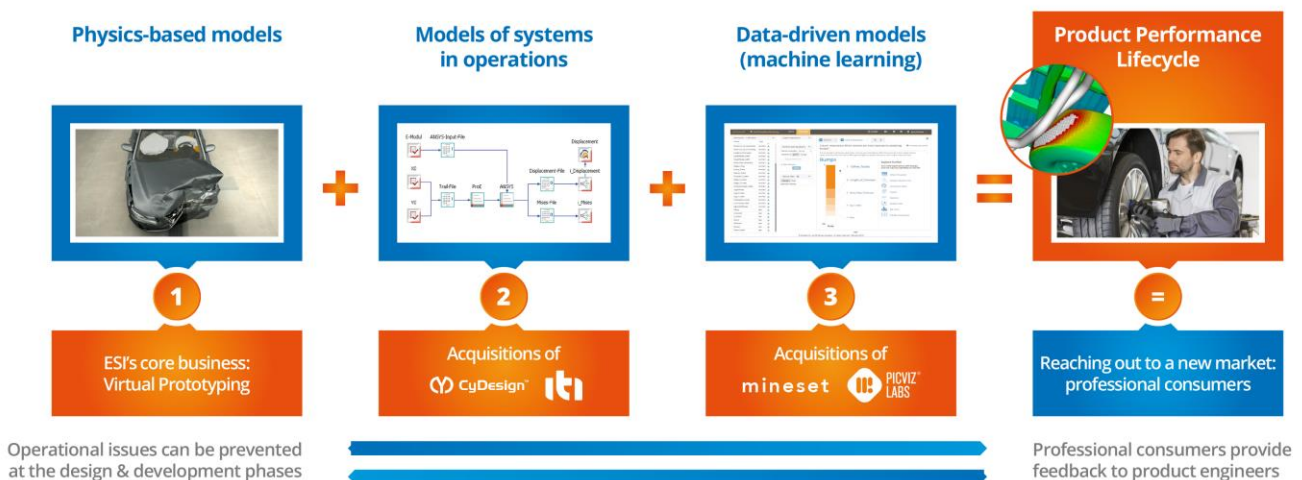


Image: With recent acquisitions in Systems Modeling & Data Analytics, ESI opens new doors for manufacturers to support Product Performance Lifecycle.



The worlds of R&D and of real-life maintenance and operations have never been so close. ESI is now addressing the extended market of professional consumers — maintenance operators, and certified technicians — who deal with closer interactions with products and consumers. In turn, the information obtained in the Internet of Things via integrated Electronic Control Units (ECU) and the feedback from professional consumers must reach designers & development engineers in order to further anticipate and improve product performance at the operational level.

**Meet ESI!** Cristian Tanasescu will present at the [Needham Emerging Technology Conference](#), taking place in New York City, NY, on May 18-19, 2016.

For more ESI news, visit: [www.esi-group.com/press](http://www.esi-group.com/press)

### ESI Group – Media Relations

[Céline Gallerne](#)

+33 1 41 73 58 46

For additional information, please feel free to contact our international communications team:

#### North America

[Natasha Petrous](#)

+1 248 3818 661

#### Germany, Austria, Switzerland

[Alexandra Lawrenz](#)

+49 6102 2067 183

#### South America

[Daniela Galoflo](#)

+55 11 3031 6221

#### United Kingdom

[Hannah Amiss](#)

+44 1543 397 905

#### Italy

[Maddalena Marinucci](#)

+39 051 633 5577

#### Japan

[Nozomi Suzuki](#)

+81 363818486

#### France

[Gaëlle Lecomte](#)

+33 4 7814 1210

#### Spain

[Monica Arroyo Prieto](#)

+34 914840256

#### South Korea

[Gyeong Hee Lee](#)

+822 3660 4507

#### Eastern Europe

[Lucie Sebestova](#)

+420 511188875

#### Russia

[Natalia Nesvetova](#)

+7 343 311 0233

#### China

[Yuxiang Guo](#)

+86 (0)10 18500685938

### About ESI Group

[ESI Group](#) is a leading innovator in Virtual Prototyping software and services. Specialist in material physics, [ESI](#) has developed a unique proficiency in helping industrial manufacturers replace physical prototypes by virtually replicating the fabrication, assembly and testing of products in different environments. Today, coupled with Virtual Reality, animated by systems models, and benefiting from data analytics, [Virtual Prototyping](#) becomes immersive and interactive: ESI's clients can bring their products to life, ensuring reliable performance, serviceability and maintainability. Benefiting world-leading OEM's and innovative companies alike, ESI empowers engineers and decision-makers with the guarantee that their products will pass certification tests, before any physical prototype is built, and that they will deliver competitive products to their markets. ESI's Virtual Prototyping solutions address the emerging need for products to be smart and autonomous and support industrial manufacturers in their digital transformation.

Today, ESI's customer base spans nearly every industry sector. The company employs about 1100 high-level specialists worldwide to address the needs of customers in more than 40 countries. For more information, please visit [www.esi-group.com/](http://www.esi-group.com/)

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