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ESI is the pioneer and world-leading solution provider in virtual prototyping.

#### Market Data

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#### Connect with ESI



## ESI releases the latest version of VA One; the complete vibro-acoustic simulation solution

### A full-frequency solution offering seamless connectivity between various vibro-acoustic modeling methods

Paris, France – December 2, 2013 – [ESI Group](#), pioneer and world-leading solution provider in Virtual Prototyping for manufacturing industries, announces the latest release of [VA One](#). VA One is used by manufacturers across the globe to predict and resolve potential noise and vibration problems up front in their development process, so they can deliver more competitive products and comply with tougher noise regulations. [VA One](#) is the only software solution on the market that enables the simulation of noise and vibration across the full frequency range by seamlessly combining key vibro-acoustic modeling methods: [Finite Elements](#) (FEM), [Boundary Elements](#) (BEM), and [Statistical Energy Analysis](#) (SEA) in a single model.

*“VA One was launched in 2005, with the ambition to provide VA simulation engineers with an all-in-one software solution that could couple statistical and deterministic modeling methods in a hybrid way, to allow the simulation of noise and vibration across the full frequency range,”* says **Sebastien Chaigne**, recently appointed Vibro-Acoustic Solution Director at ESI Group. *“Today, ESI teams have achieved the goal set in 2005. The latest version of VA One covers the full spectrum of frequencies with great flexibility, delivering precise vibro-acoustic simulation results. This unique capability is reinforced by an improved workflow integration, to enable faster turnaround times.”*

[VA One](#) allows engineers to get a precise idea of a product’s future vibro-acoustic performance by setting up interior or exterior acoustic models, coupled if necessary with a vibrating structure having various types of excitations.

The latest version of [VA One](#) now takes into account Hybrid Area junctions between FE cavities and SEA panels: enabling engineers to improve the characterization of small cavities, as required to develop home appliances, cabins, or small vehicles, for example.

Furthermore, [VA One](#) now enables engineers to couple BEM and FE cavities. This allows, for example, the simulation of a duct radiating noise externally; a situation relevant to investigating the noise from HVAC (heating, ventilation, and air conditioning) systems or automotive exhausts.

**Joan Sapena**, Acoustics R&D manager at Alstom Transport France, comments “*VA One’s new functionality, connecting BEM to FE cavities, allows us to simulate the vibroacoustic performances of complex HVAC ducts. This unique feature is essential to ensure the right allocation and dimensioning of air ducts of on board HVAC systems, from which radiation could not be effectively modeled without using hybrid methods.*”

[VA One](#) provides the perfect environment to support all types of VA simulation needs – from checking early design concepts through the detailed component design phase, to troubleshooting in the virtual qualification test phase. It can also be used for product cost and weight optimization by simulating various sound package scenarios, while preserving product specifications.

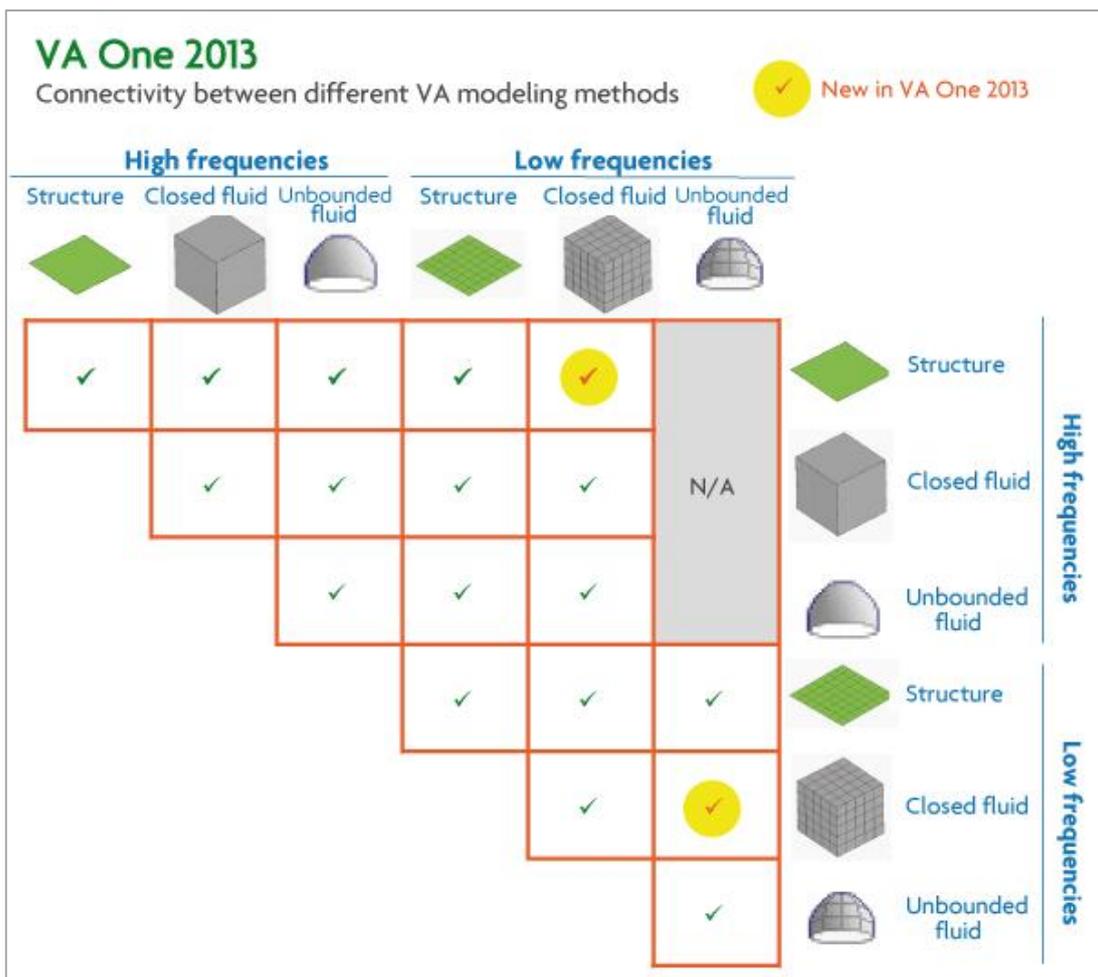


Image: [VA One](#): Connectivity between different VA modeling methods



Transmission Loss (TL) can now be calculated and plotted for all sources and receivers, including BEM, Semi-Infinite Fluid and Diffuse Acoustic Field (DAF). This is useful to users who need to model acoustic transmission loss through walls and panels, at any stage of the design or development project.

New functionalities that provide improved customer experience and workflow integration include GUI customization. Users can now customize their toolbars in order to map their design process and thereby ease handovers between different teams. VA One's Developer's Kit has been updated to support Python 3, allowing for the creation of dialogs within VA One's environment.

For more news or information about ESI's vibro-acoustic solutions, please visit [www.esi-group.com/VAOne](http://www.esi-group.com/VAOne)

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### About ESI Group

ESI is a pioneer and world-leading provider in Virtual Prototyping 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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### ESI Group – Media Relations

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