

Fortissimo: Dates and Facts

As of: October 2016

[Fortissimo](#) is a project funded by the European Commission within the [I4MS initiative](#) (ICT Innovation for Manufacturing SMEs) framework. The aim of this project is to strengthen the global competitiveness of small and medium enterprises (SMEs) in Europe. To do this, Fortissimo uses a cloud-infrastructure to provide SMEs from different vertical markets including automotive, aviation, medical engineering, manufacturing, and the energy and environment sectors, with easy access to computationally intensive digital simulations.

In the past, gaining access to the resources required for digital simulation has often posed serious technical and financial challenges to SMEs. Through the usage of High Performance Computing (HPC) simulations via a cloud-infrastructure, opportunities for optimisations can be identified and used along the entire value chain. This approach offers a broad spectrum of possibilities, beginning with more precise design of complex workpieces through the use of computer-supported visualisation; continuing via reducing the time-to-market thanks to simulated tests on prototype models; and finishing with saving material costs through the virtual manufacture of prototypes to fine-tune production.

Fortissimo collaborates with participating SMEs, assembling a team of experts to conduct experiments alongside them, which serves to prove the business value of digital simulations. The exact execution of each experiment depends on the specific requirements of the business. Each experiment set that the Fortissimo project conducts with an SME always covers the entire planning and implementation process of the HPC-based solution. Through this approach, the experiments use individual business problems to show how the use of digital simulations delivers economic value.



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| Project Duration | The Fortissimo project consists of two phases: the first phase started in July 2013 and ends in December 2016. Fortissimo 2 began in November 2015 and ends in October 2018. |
| Budget | <p>The budget for the first phase of the project totals 21.7 million Euro, 16 million of which was provided by the European Commission within the framework of the I4MS initiative.</p> <p>Fortissimo 2 has a budget of 11.1 million Euro, 10 million of which is again provided by the European Commission within the frame of the I4MS initiative.</p> |
| Core Partners | 15 core partners, consisting of IT solution providers and HPC Cloud service providers, serve as the leading support for Fortissimo. The core partners are: Arctur, Atos, Bull SAS, CESGA, Cineca, GENCI, Gompute, INRIA, Intel, Scapos, Sicos, SURFsara, the University of Edinburgh (EPCC, the project coordinator), the University of Stuttgart (HLRS) and XLAB. |
| Additional Partners | In addition to the core partners, a further 124 partners from 19 countries support Fortissimo. This includes 85 SMEs. |
| Execution of the Experiments | <p>SMEs apply to run experiments through “open calls”. For 18 months, the duration of one experiment, the Fortissimo partners then provide the participating SMEs with free access to HPC-resources via a cloud-infrastructure and support them in the planning, implementation and realisation of their respective project. Throughout the duration of the project, around 87 experiments are planned, covering the automotive, aviation, medical engineering, manufacturing, energy and environmental sectors. To date, 67 experiments have been started. Details of completed experiments can be found here: http://www.fortissimo-project.eu/success-stories</p> <p>Details of ongoing experiments are here: http://fortissimo-project.eu/experiments</p> <p>The final number of experiments will be known in spring 2017.</p> |
| Fortissimo Marketplace | Starting October 2016, Fortissimo will be offering an online marketplace. This marketplace will provide European SMEs with |



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| | <p>permanent, simple and cost-effective access to the hardware, software, and know-how required for computationally-intensive digital simulations, via an on-demand, pay-per-use model.</p> <p>At the same time, the marketplace will serve as a platform for solution providers to offer their products and services. Acting as a central contact-hub, the marketplace will thus connect the demand of SMEs to the partners' specialised offers.</p> <p>The Fortissimo Marketplace will also offer consultancy to find suitable solutions for complex business challenges not served by turn-key offers on the marketplace.</p> |
| I4MS Initiative | <p>Fortissimo is part of the ICT Innovation for Manufacturing SMEs (I4MS) initiative, which is sponsored by the European Commission. The aim of this initiative is to secure the leading market position for European manufacturing businesses through the usage of information- and communications technology (ICT). In addition to cloud-based HPC simulations, the focal points lie in the fields of robotics, laser technology, and intelligent sensor-based machines.</p> |
| Website | <p>http://www.fortissimo-project.eu/</p> |

About Fortissimo

[Fortissimo](http://www.fortissimo-project.eu/) is a pair of projects funded by the European Commission. The aims of the projects are to strengthen the competitiveness of European businesses in a global market. To do this, Fortissimo provides companies with an easy cloud-based access to computationally intensive digital simulations. The possible improvements resulting from this approach include the more precise design of complex workpieces, acceleration of time-to-market, and cost savings of materials. In the Fortissimo marketplace, businesses find permanent and cost-effective access to expertise and technology on a pre-pay or pay-per-use basis. In addition, the market place offers solution providers a platform to distribute their solutions.

For further information, please visit: <http://www.fortissimo-project.eu/>

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