

ASCOMP GmbH



*Advanced Fluid Simulation Technology for Novel Technologies*

**TransAT**

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## Executive Summary

*ASCOMP GmbH is a Swiss Research and Development Corporation specialized in fluid simulation technology for industrial & environmental problems. The core discipline is known as CFD, short for Computational Fluid Dynamics. The Company was created as a spin-off of ETH Zurich in December 2003, and is the only Swiss company that develops a strategically-oriented fluid simulation tool.*

*Very briefly on business content and product, CFD plays a vital role in the design of almost all industrial sectors: in conventional areas such as mechanical, aerospace, chemical, process, pharmaceutical, oil-gas, mining & nuclear engineering, as well as in novel technologies. In 2009, the CFD worldwide market has attained 20 Billion USD. The latest transaction 'blast' in the sector is the acquisition of Fluent (number 1) by ANSYS (number 2) in 2008 for 635 million USD. ASCOMP believes that it can play a substantial role in this domain, thanks to the expertise and know-how of its founding and present members in very hot scientific niches (multiphysics and multiphase flows) that can help ever-more hot areas like CleanTech, MedTech, thermal management or packaging in computers (and supercomputers in particular) electronics high power-density systems, and energy rationale use and impact on environment.*

*ASCOMP's first European competitor, CD ADAPCO (number 3), declares annual revenues from code licensing (Star & StarCCM+) of about 100 million USD. Number one worldwide ANSYS is quoted in the US stock market. ASCOMP's turnover in 2010 is expected to reach 1'000.000 USD on operations conducted in Europe and the US. The company intends to enter the US and Canadian markets by launching a subsidiary company in Cambridge USA to be named ASCOMP-USA. The reasons for this location choice are: (1) the tight relationships existing between ASCOMP CEO/CTO, Dr Djamel Lakehal, and the MIT, where he acts as a Research Affiliate at the Nuclear Engineering Department (<http://mit.edu/nse/people/researchstaff/lakehal.html>), (2) Dr Lakehal's collaborations with high-end research institutions, including Schlumberger-Doll R&D Center, the MIT Energy Initiative Center, MITRE, and (3) the proximity of many other research institutes working on advanced fluid-based Microtechnologies, MedTech and BioTech.*

*Further, our intention is to penetrate two other strong business segments in the US, which is the Nuclear Engineering one and the Oil & Gas market. For the first, ASCOMP is proud to be the only non-American institution that is part of the DOE research project CASL (<http://www.energy.gov/news/9011.htm>) with an allocated fund of 800.000 USD until 2014. This opens breaches for potential exit scenarios: i.e. be bought by Westinghouse, the main industrial partner of the same project. For the second, ASCOMP is part of an international Research consortium called 'TMF', short for Transient Multiphase Flow, coordinated by Imperial College London. Here we provide high-end research for industrials of the sectors such as Chevron and Exxon-Mobil. This will likewise open new perspectives for a profitable exit scenario on the long term.*

*The financial generation mechanism will be based on commercializing the simulation product TransAT, and providing maintenance and consultancy to the users. A strong connection with research institutions around Cambridge are envisaged to add scientific value to the product and identify new hot niches to add to the application portfolio. The business migration process from research-development-exposure to marketing-and-sale will require a 3-year endeavor, after which an exit scenario is envisaged, which could take one of the two acquisition forms: (a) by other larger simulation tools providers, or (b) large industry to integrate into their strategic R&D, e.g. BP, Schlumberger, Westinghouse, AREVA, Statoil-Hydro.*