

**High performance computing and long term technology challenges for air transport
An engine manufacturer perspective**

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In a very competitive aeronautical landscape, where green issues and economical performances are the number one priority, aircraft engine manufacturers have to endeavour tough challenges.

Throughout its history, for decades SAFRAN has been investing on high performance computing (HPC). The main goal is to better understand physics inside engines in order to curb NOx and CO2 emission, dramatically reduce consumption and limit noise footprint impact. These challenges involves not only cutting-edge technologies but also reliability and maintainability issues. HPC is a strong tool to provide answers to be able to invent the power of the future.

High expectations programs investigating innovative engine architectures are always an adventure. Nevertheless, HPC helps us reduce time and cost-to-market, and manage risk vs. cost.