

# Eurolab4HPC Long-Term Vision on High-Performance Computing

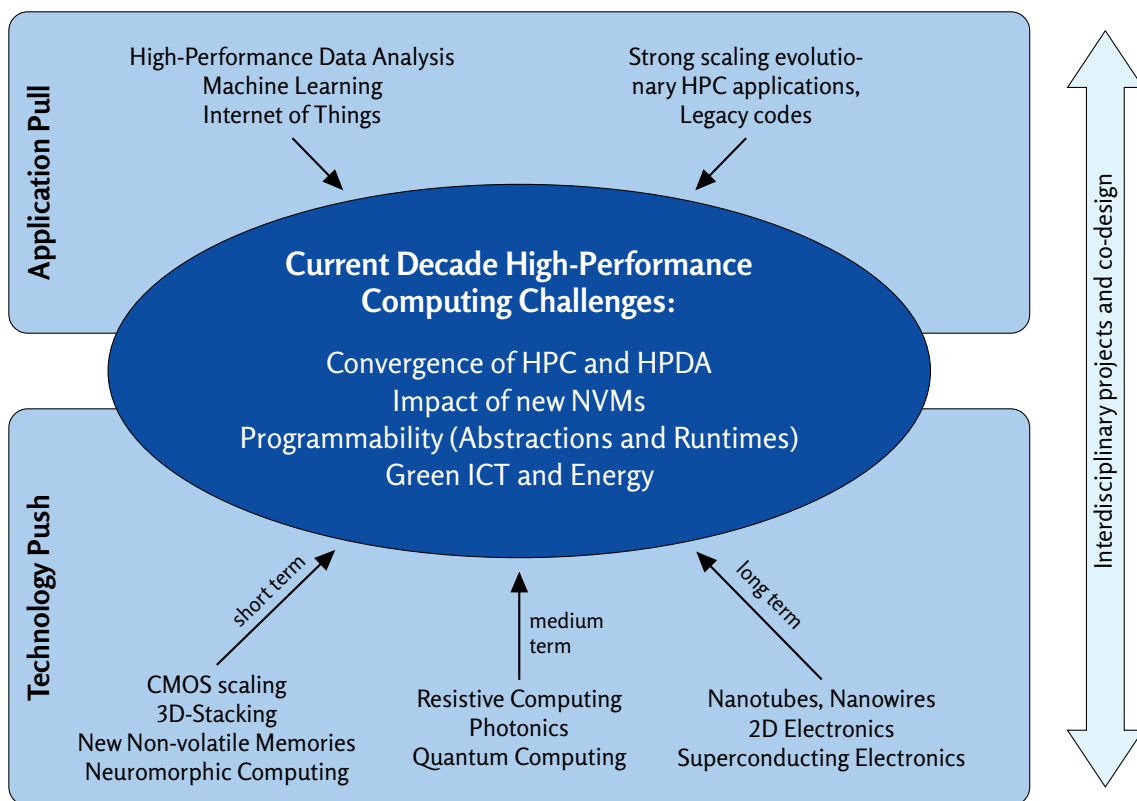
Updated Version of January 2020

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Radical changes in computing are foreseen for the current decade. The “Eurolab4HPC Long Term Vision on High-Performance Computing” of January 2020 presents an assessment of potential changes for High-Performance Computing (HPC) in the period 2023 to 2030. The Vision is the result of a roadmapping effort within the EC CSA Eurolab4HPC 2. The current Vision updates and replaces the first version of August 2017.

High-Performance Computing in the current decade will continue to be driven by a technology push and an application pull. Enhancements of existing technologies and new inventions are expected to take place in different periods of time: in the short term, sustaining technologies will further advance, while disruptive technologies and alternative ways of computing are expected in the medium term. In the long term, new technologies will replace CMOS for processor logic. New applications and software technology will perform a pull on HPC, e.g. high-performance data analysis (HPDA), machine learning, and the internet of things.

Funding opportunities arise from the potential new hardware/software technologies, as a base for further European research in HPC. In return, this research will shape and influence high-performance computing of the current decade.



The full Eurolab4HPC Vision document and a six-page executive summary are available at: <https://www.eurolab4hpc.eu/roadmap/>