

Quantum Learning Machine

Quantum Computing and High Performance Computing Workshop 2018

18.12.2018



Top 5 digital leader
#1 leader in
Europe



€13 billion
annual
revenue circa



120,000
experts



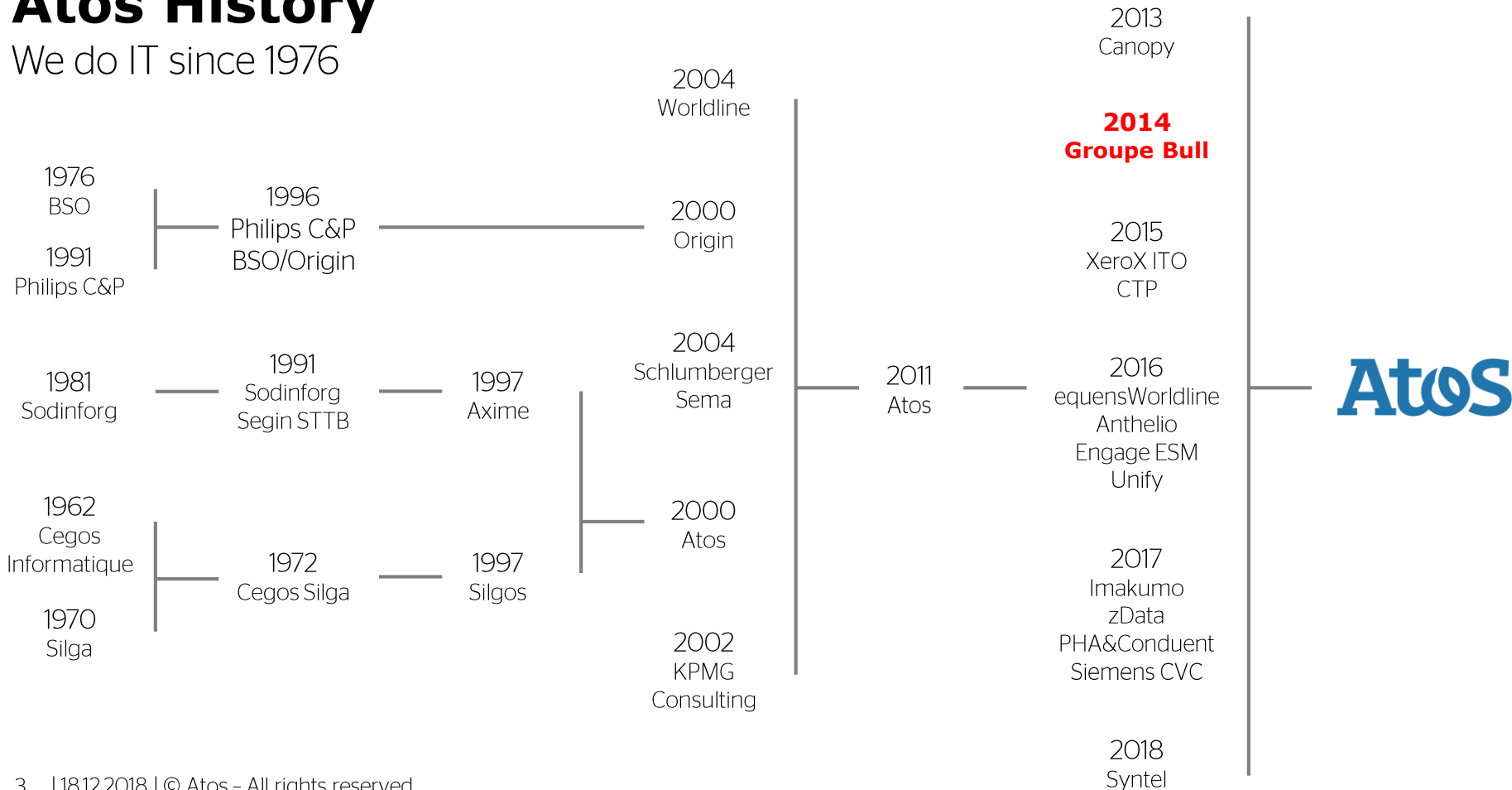
73 countries



22 supercomputers
in top500
+29% y2y

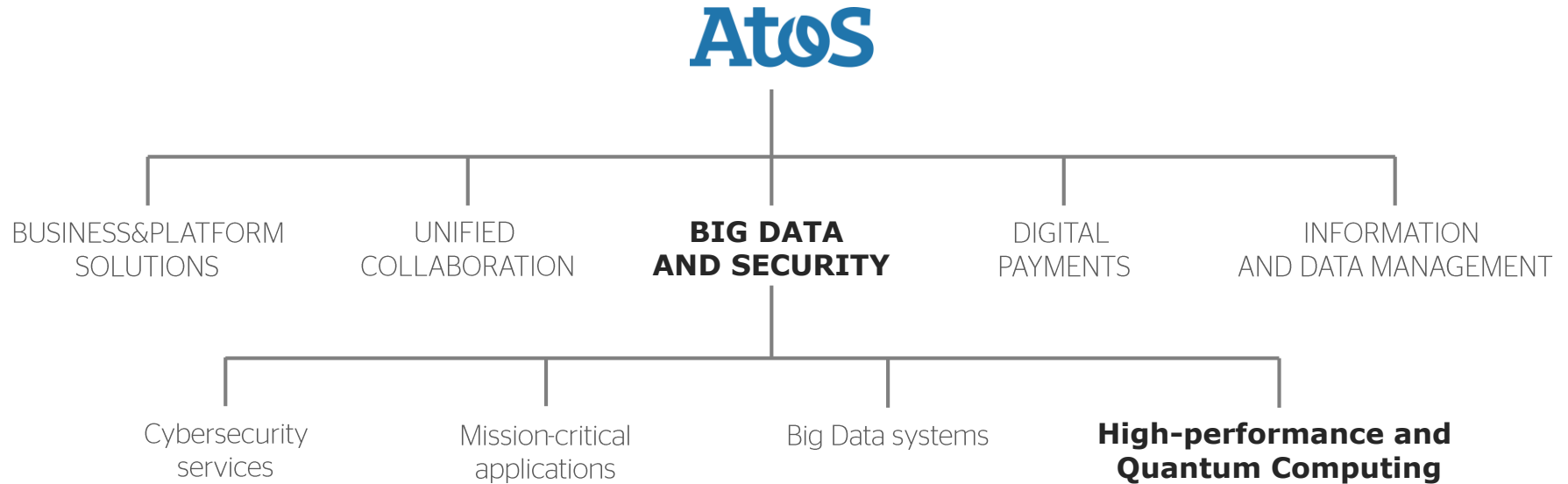
Atos History

We do IT since 1976



Atos structure

Five service lines



Quantum Computing Committee

Our Vision



Thierry Breton
ATOS CEO



Serge Haroche
NOBEL 2012



Cédric Villani
FIELDS MEDAL 2010



Alain Aspect

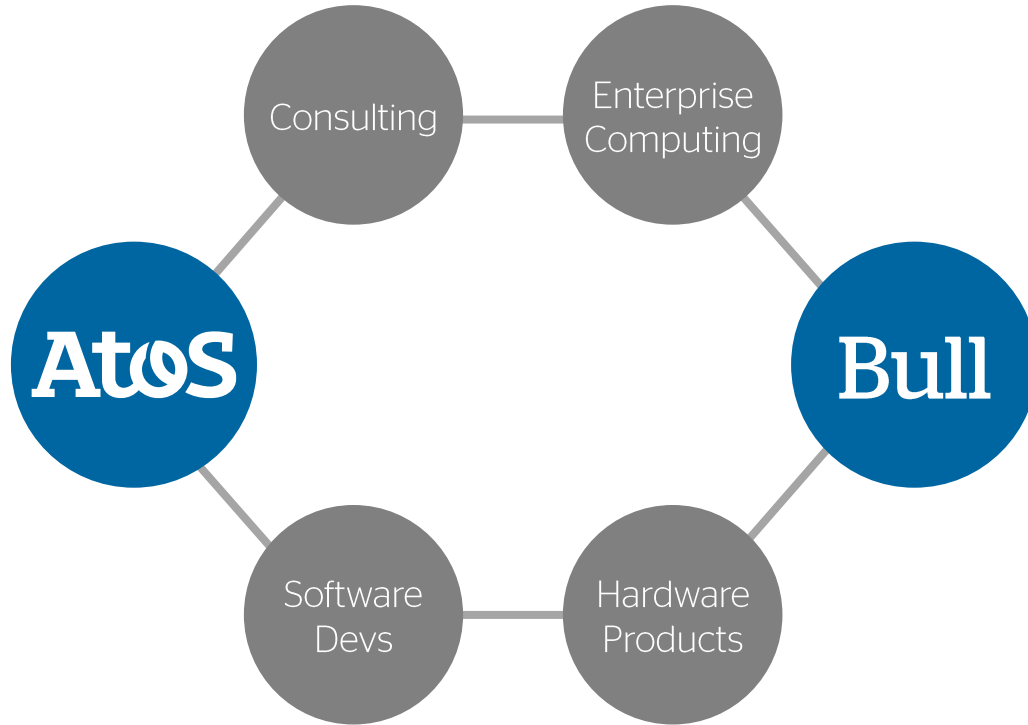


David DiVincenzo

AND MANY OTHERS

Atos 2017

Our vision



**ENTERPRISE-CLASS
DEVELOPMENT AND TESTING ENVIRONMENT
PROFESSIONAL CONSULTING SERVICES
FOCUS ON QUANTUM CODING**

Quantum Computing

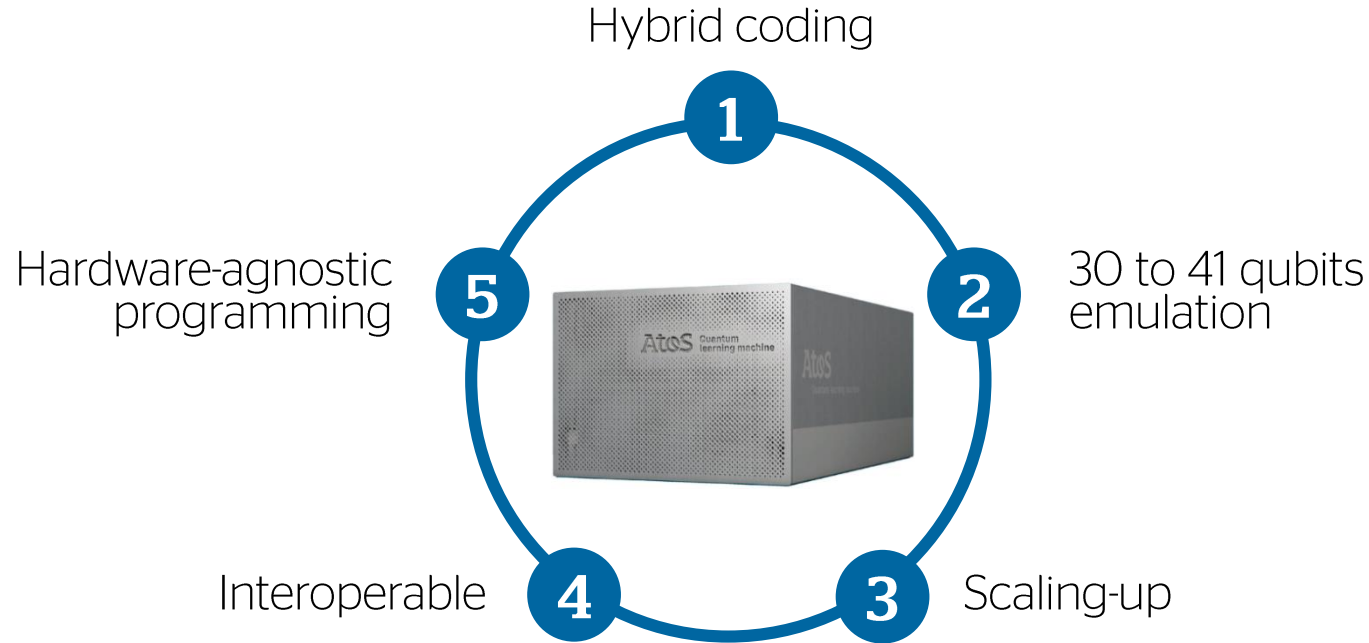
Our objective

- ▶ Algorithm development and programming cluster
- ▶ Training quantum simulation platform on selected algorithms
- ▶ Designing new computing architectures
- ▶ Quantum safe cryptography algorithms



Quantum Learning Machine

Features



Quantum Learning Machine

Features



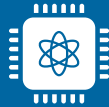
BullSequanaSupercomputer

HPC-class binary hardware



RedHatLinux

Open-source HPC operating system



AtosQuantumEmulator

Deploys the inputs to the emulated QPU, collect the results and goes on with execution



AtosSDK

Python-based IDE with plugins for popular quantum algorithms and quantum noise simulation

Atos QLM

Consulting

- ▶ The essentials: Atos Fast Start
- ▶ Training on selected algorithms
- ▶ Training on custom algorithms
- ▶ Specialized consulting



Atos QLM

References



Atos sets milestones for the future of IT with its 'Atos Quantum' program Scientific Council

Paris, 1st June 2017

Atos launches construction of global R&D Lab to drive innovation in Quantum Computing

The Paris Region supports the development of this new lab, located in Les Clayes-sous-Bois (Yvelines), which positions the region as a strong technological hub

Les Clayes-sous-Bois (Yvelines), November 27, 2018

European Commission selects Atos for two major Quantum Flagship Initiative programs

Paris, December 4, 2018

Finis coronat opus

For more information please contact
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