

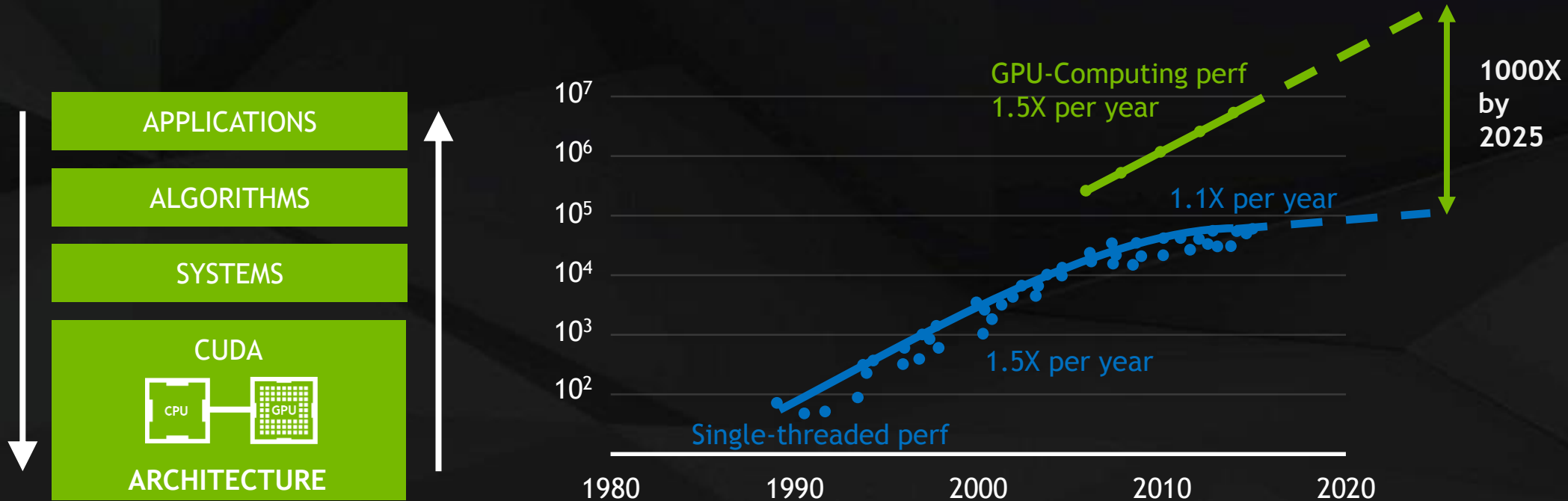


NVIDIA

TERATEC 2017 UPDATE

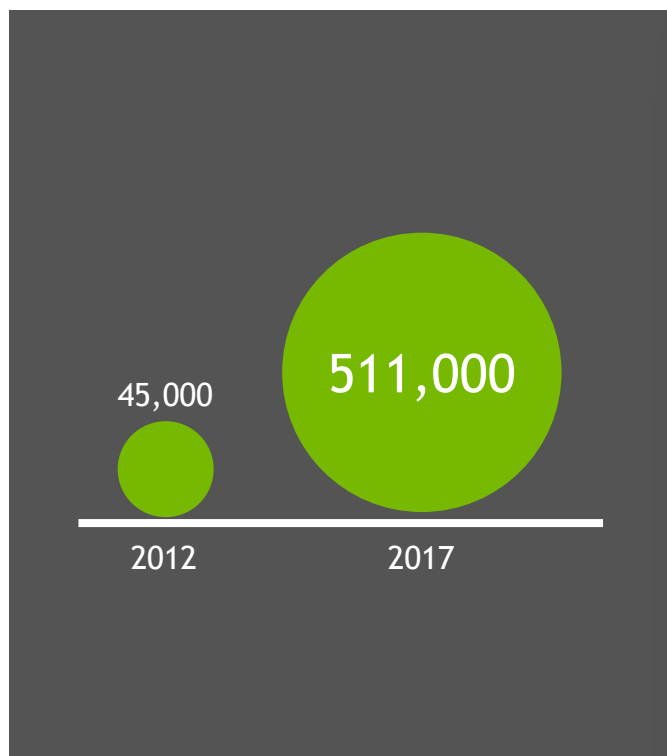
Frédéric Parienté
Tesla Accelerated Computing
NVIDIA Corporation

THE RISE OF ACCELERATED COMPUTING



Original data up to the year 2010 collected and plotted by M. Horowitz, F. Labonte, O. Shacham, K. Olukotun, L. Hammond, and C. Batten New plot and data collected for 2010-2015 by K. Rupp

MOST ADOPTED PLATFORM FOR HPC



11X GPU DEVELOPERS

All Top 10 HPC Apps Accelerated

Gaussian
ANSYS Fluent
GROMACS
Simulia Abaqus
NAMD
WRF
VASP
OpenFOAM
LS-DYNA
AMBER

450+ GPU-ACCELERATED APPLICATIONS



China Sunway TaihuLight

World's fastest supercomputer in Top 500 powered by OpenACC

CSCS Piz Daint

Fastest European and #3 supercomputer in Top 500 powered by NVIDIA P100

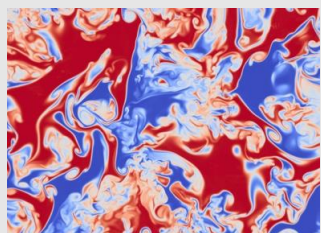
GREEN 500

13 out of the top 13-14 supercomputers are powered by NVIDIA P100 inc. #1 TiTech TSUBAME 3 and its 14.1 Gflops/Watt !

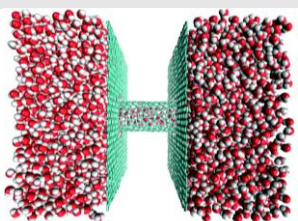
DEFINING THE NEXT GIANT WAVE IN HPC

AI SUPERCOMPUTING WILL TRANSFORM HPC

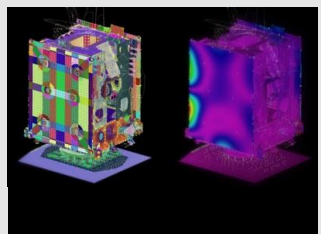
Extending Reach of HPC By Combining Computational & Data Science



Turbulent Flow



Molecular Dynamics



Structural Analysis

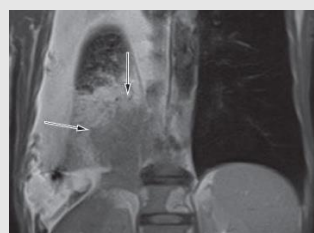


N-body Simulation

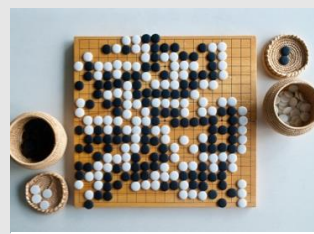
COMPUTATIONAL SCIENCE



“What’s happening?”



“Is there cancer?”

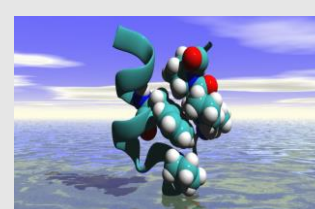


“Next move?”



“What does she mean?”

DATA SCIENCE



Drug Discovery



Clean Energy



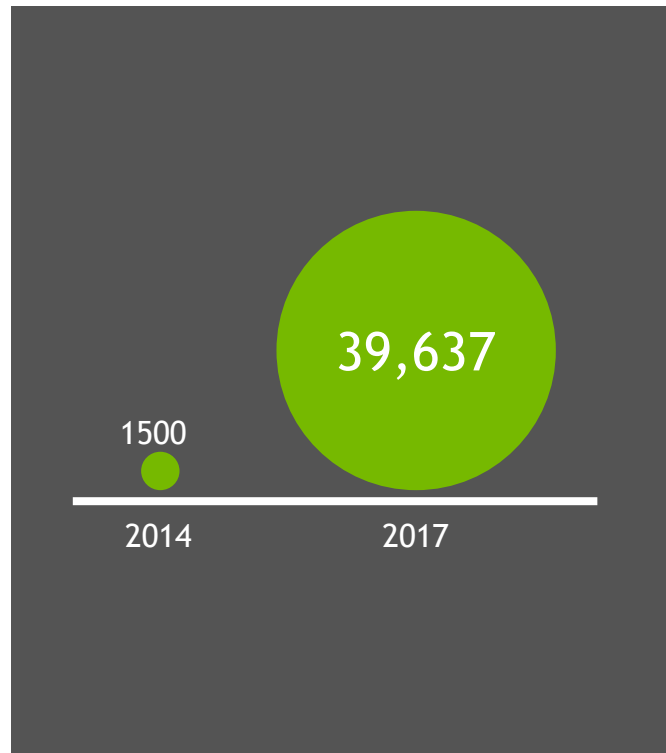
Understanding Universe



Monitoring Climate Change

COMPUTATIONAL & DATA SCIENCE

MOST ADOPTED PLATFORM FOR AI



25X COMPANIES ENGAGED



EVERY DEEP LEARNING
FRAMEWORK ACCELERATED



AVAILABLE EVERYWHERE

TESLA V100

THE MOST ADVANCED DATA CENTER GPU EVER BUILT

5,120 CUDA cores

640 NEW Tensor cores

7.5 FP64 TFLOPS | 15 FP32 TFLOPS

120 Tensor TFLOPS

20MB SM RF | 16MB Cache | 16GB HBM2 @ 900 GB/s

300 GB/s NVLink



GPU TECHNOLOGY CONFERENCE

Oct 10-12, 2017 | ICC Munich
www.gputechconf.eu #GTC17EU

