

CSC experience

or why MPI should be taken seriously

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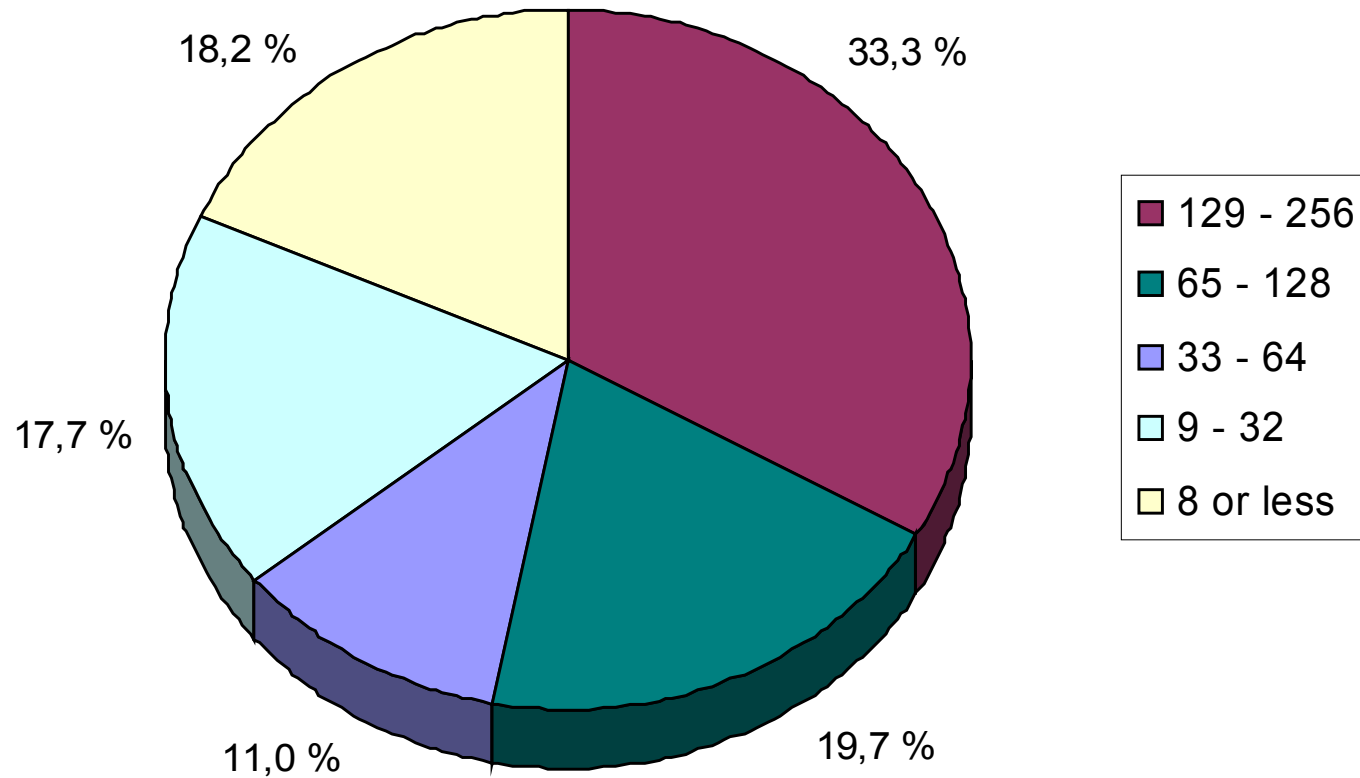
Computing at CSC

1468 users in 589 computational research projects
from different fields of science,
over 60,000 logins per month,
2'100 CPU-cores on HP supercluster CP4000 BL,
around 11'000 CPU-cores on Cray XT4/XT5
plus a number of smaller application servers



MPI experience at CSC

**Division of processor time on 2'156 CPU cores cluster
(between different amount of cores)**

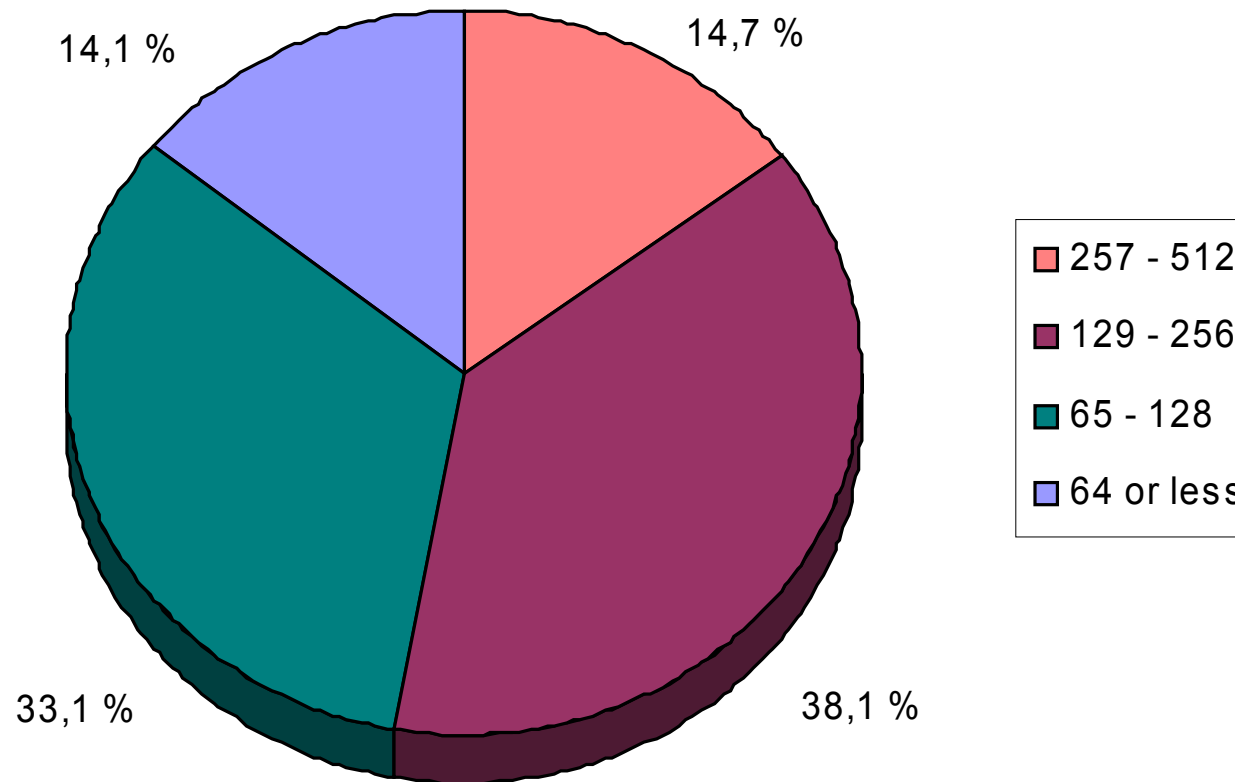


*** all the statistics for the year 2007**



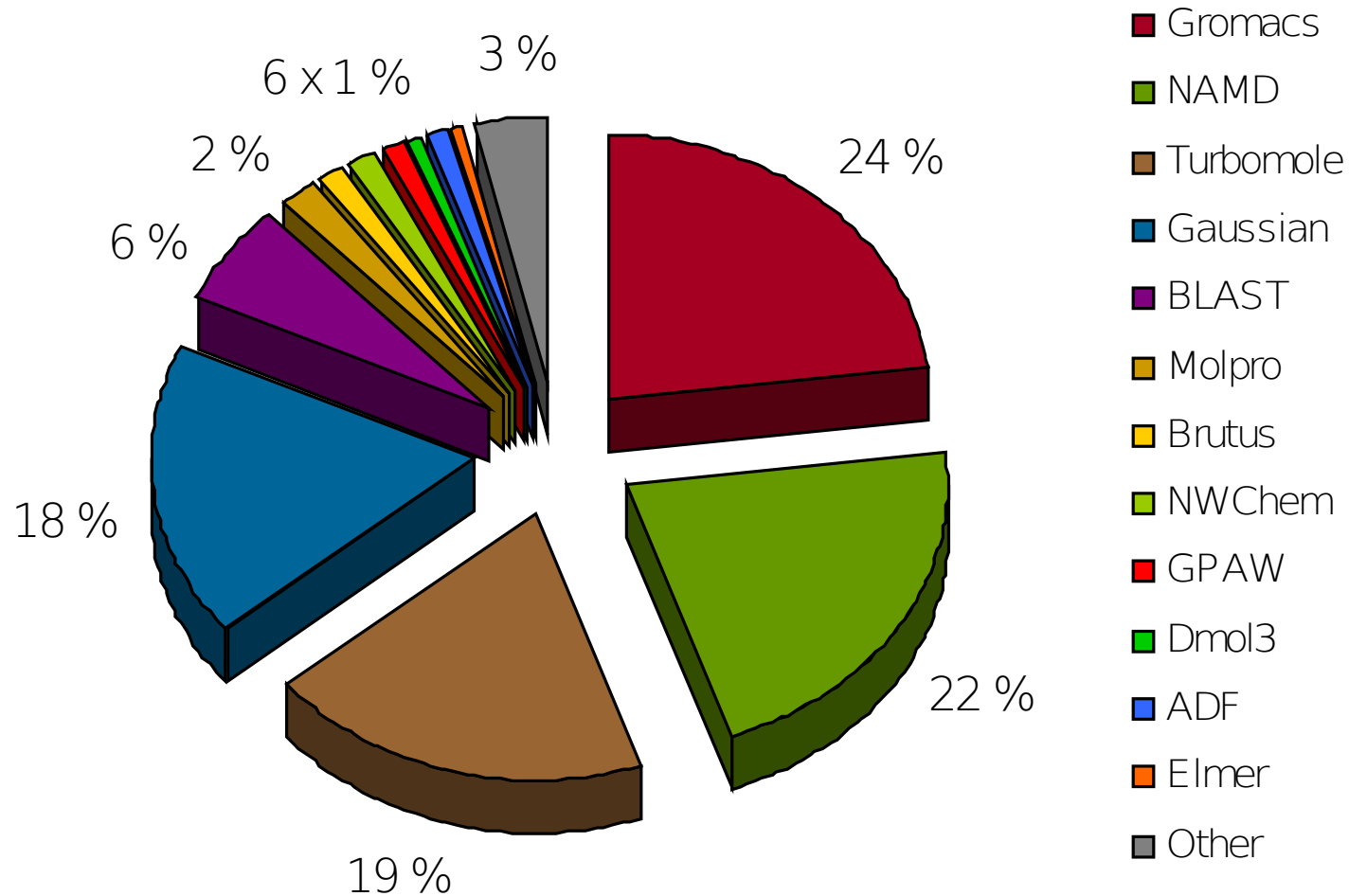
MPI experience at CSC, cont.

**Division of processor time on Cray XT4
(between different amount of cores)**



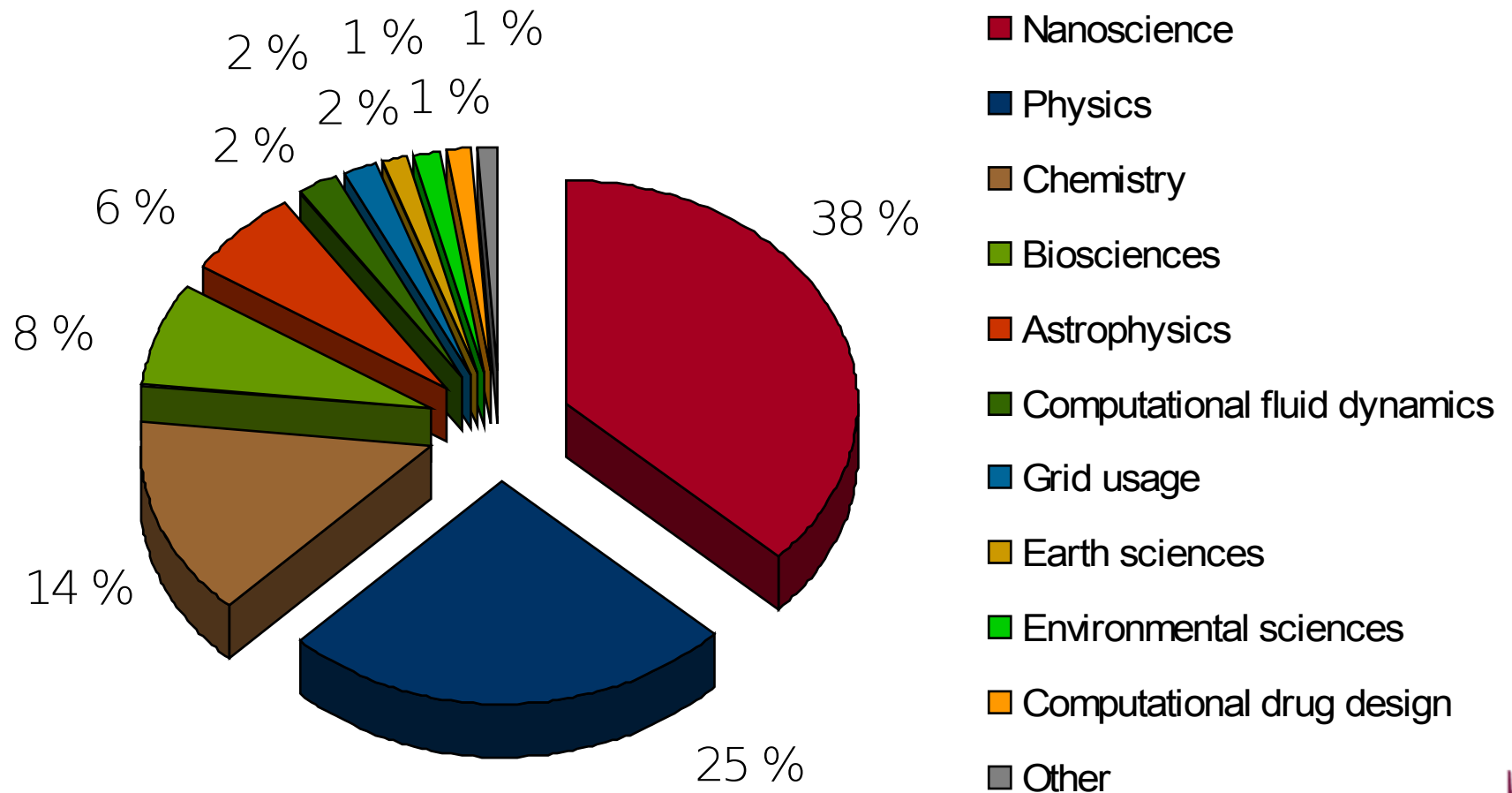
Statistics by applications

Software usage according to processor time



Statistics by sciences

Usage of processor time by discipline



MPI must be taken seriously

ability to run and compile MPI easily
the default recommended flavor (OpenMPI ?)
ability to request the varying number of slots
ability to request logical CPUs within
 one physical CPU only, or one WN
available memory per logical CPU
interconnecting choice
others (?)

