What the Cores will look like: From a few large cores to many lightweight cores

Optimized for speed

Optimized for performance/watt

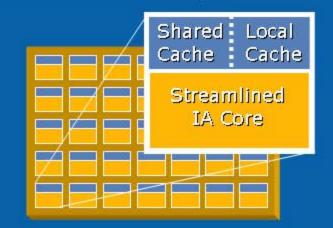
Cache

Pentium

Pentium era chips
optimized for raw
speed on single
threads.
Pipelined, out of order
execution.



Today's chips use cores which balance single threaded and multi-threaded performance



5-10 years: 10s-100s of energy efficient, IA cores optimized for multithreading



